

MARITIME REPORTER AND ENGINEERING NEWS

RIVERBOAT GAMING SUPPLEMENT



NWC ANNUAL

AUGUST 1992




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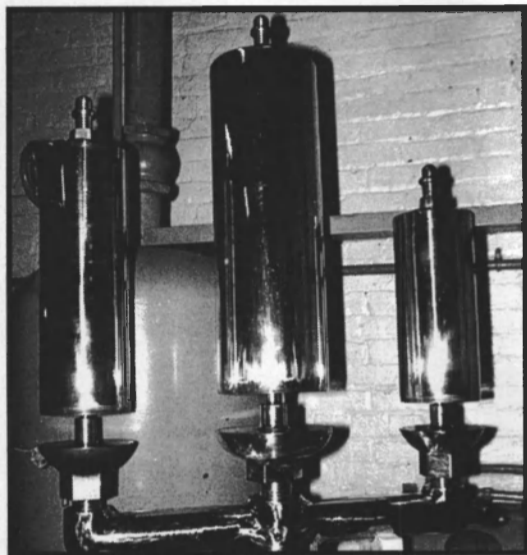


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ON THE COVER

The City of St. Louis, "the Gateway to the West," will be the site of the Annual Meeting of the National Waterways Conference (NWC), one of the nation's largest organizations representing the interests of inland waterways carriers, shippers, yards, port authorities, and others. This issue will also feature a supplement on one of the hottest markets in the marine industry—riverboat gaming. The major operators, newest vessels and latest legislation are all examined.

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\$15.8 Million Contract To Westinghouse

The Plant Apparatus Division of Westinghouse Electric Corp., Wilkins Township, Pa., has received a \$15.8 million contract from the Naval Sea Systems Command for naval nuclear propulsion components.

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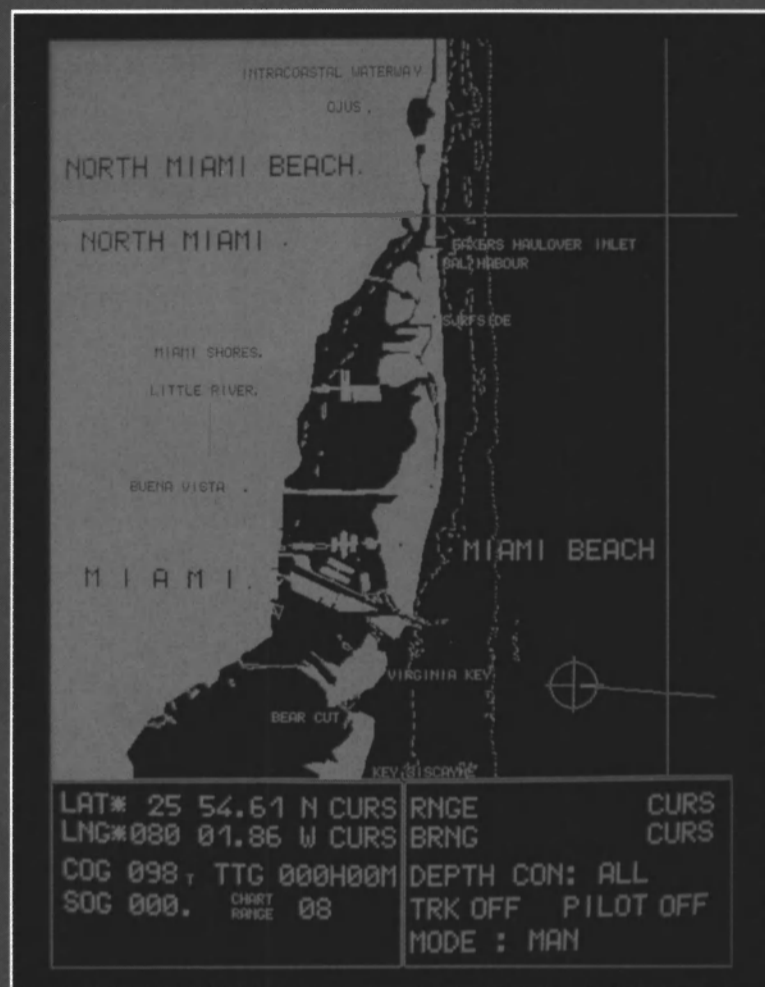
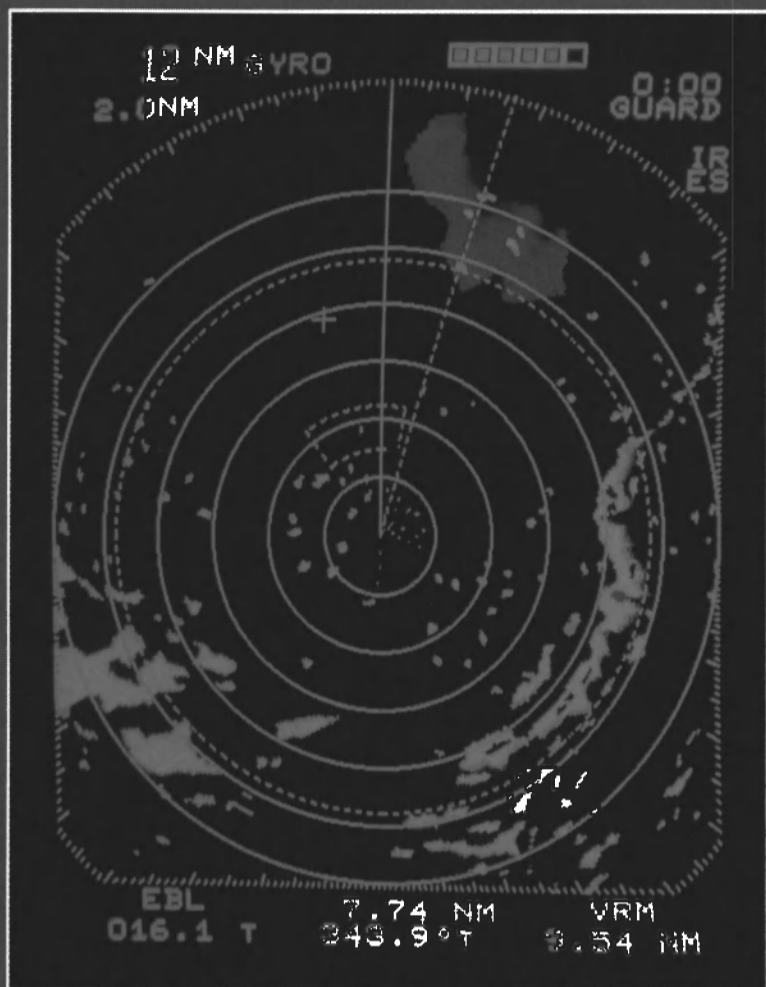
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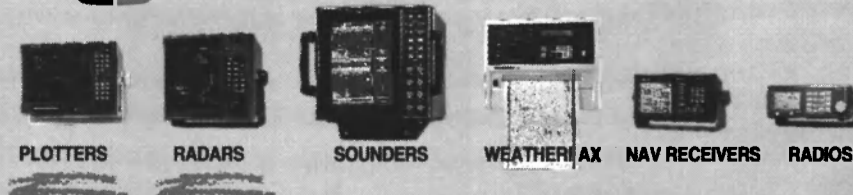
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Boats & Barges



The F/V Sea Storm, recently repowered at MARCO shipyard, Seattle.

MARCO Performs Major Refits And Conversions On Fishing Trawlers

When the F/V Sea Storm left MARCO Marine's shipyard, Seattle, Wash., in late May, she left with new engines, a new trawl deck and a new name.

The F/V Sea Storm, formerly the MARCO-built, 123-foot, crabber/

trawler Dona Genoveva, was in the MARCO shipyard recently for repowering with a new CAT 3516 DITA 4-cycle, 1,810-hp main engine and a CAT 3412 DITA, 612-hp auxiliary engine. The transformation from the Dona Genoveva to the Sea Storm

included a new trawl deck, trawl winches and a new gantry with forward and aft reels.

The new owners, Arctic Storm Limited Partnership, also had MARCO install a propulsion nozzle, a new propeller and gilson winch. With fresh paint and refurbished interior, the conversion into the F/V Sea Storm was complete.

MARCO Marine also carried out repowering work on the F/V Vesteraalen. The yard replaced the controllable pitch propeller with fixed pitch, installed a new propulsion nozzle and modified the rudder for quicker helm response. A new raw sea water (RSW) circulation system was also installed and general maintenance performed on the vessel.

The F/V Defender, repowered and converted from an oil rig supply vessel to a trawler last fall, recently returned to the MARCO shipyard for installation of new reduction gears with power takeoff (PTO) shafts. MARCO also redesigned and rebuilt the Defender's RSW

pump and manifold system and installed new drain screens in the RSW tanks.

To receive free information about the services and facilities available from MARCO Marine,

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Study Indicates World Tanker Employment May Rise 92 Percent

Ocean Shipping Consultants (OSC), of Chertsey, U.K., have completed a study that predicts a major increase in the international ocean carriage of oil products over the next ten years.

OSC's "Tankers: The Outlook to 2005" states that the annual volume of oil product shipments will rise from 461.7 million tons in 1990 to 749.3 million tons in 2005, representing an increase of more than 287 million tons, or 62 percent over 15 years.

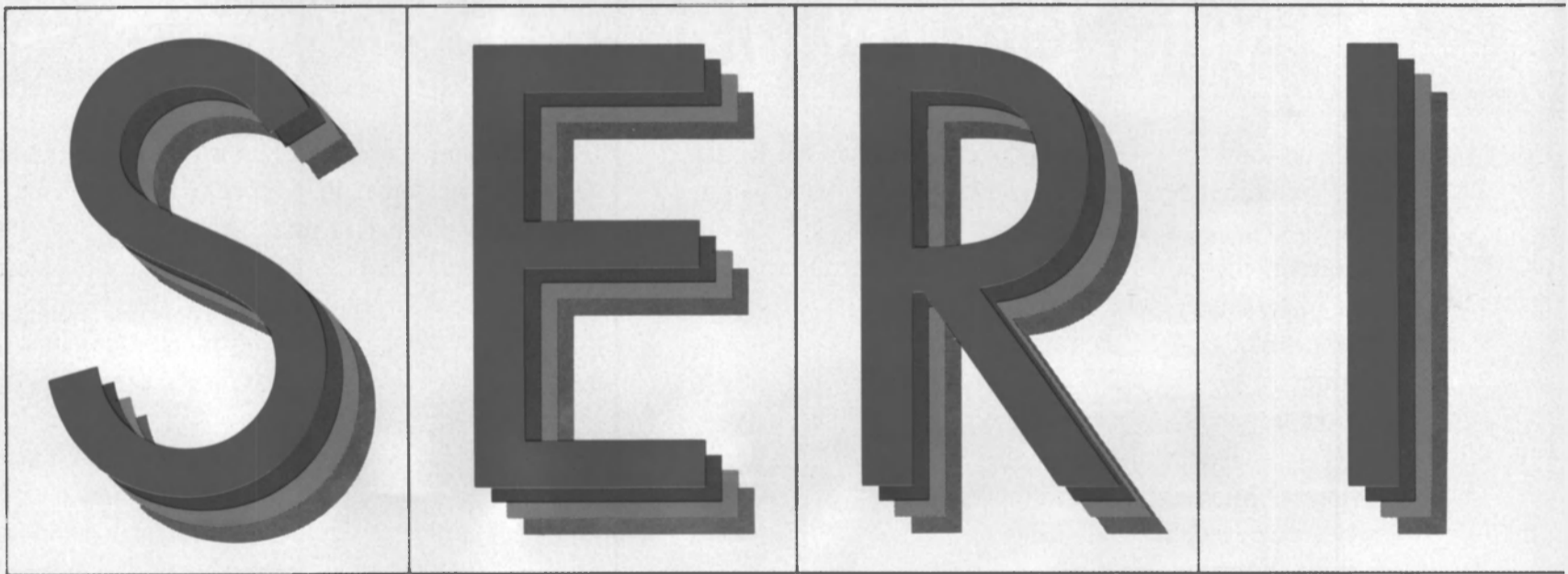
The report bases these significant growth predictions on likely trends in the citing of refinery capacity and the movement away from traditional market centers.

Consequently, OSC suggests that the future outlook for the product tanker market is very positive, with total product tanker employment set to rise by 92 percent.

To obtain a copy of OSC's tanker study contact: Ocean Shipping Consultants; Ocean House; 60 Guildford Street; Chertsey, Surrey; U.K. KT169BE. Fax: (44) 932-567084.

F/V SEA STORM Equipment List

Main & Aux. Engine.....	Caterpillar
Propeller & Nozzle.....	Nautican
Trawl Winch, Net Sounding Winch, Warp Counter, Trawl System, and Net Drum.....	Rapp
Gilson Winch.....	Lantec
Fish Pump.....	Transvac
Exhaust.....	Hapco



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Boats & Barges



The first of twelve MSRC oil spill response vessels, the California Responder, to be built by the Trinity Marine Group, was recently launched by the Halter Marine-Moss Point Shipyard.

Trinity Marine Launches First Of 12 Response Vessels For MSRC National Fleet

The first of a series of 12 Trinity-built oil spill response vessels for the Marine Spill Response Corporation (MSRC) was launched at the Moss Point shipyard of Halter Ma-

rine, Inc., in Escatawpa, Miss.

Christened the California Responder, the 210-foot ship will remain at the Halter Marine Inc. yard for additional fabrication and outfit-

ting. Upon completion this fall, she will be based in Port Hueneme, Calif. Sister ships will be located at various ports around the U.S. coastline from Maine to Washington state, and in Hawaii and St. Croix.

Besides the California Responder, four other MSRC spill response vessels will be built at the Halter-Moss Point yard. Additionally, four boats will be built by the Lockport, La., yard of Halter Marine, Inc., and three at the Trinity Beaumont shipyard in Beaumont, Texas. The three shipyards are part of the 11-shipyard Trinity Marine Group, headquartered in Gulfport, Miss., a subsidiary of Trinity Industries, Inc., Dallas, Texas.

The vessels are designed to temporarily hold 4,000 barrels of recovered oil for transport to barges and other vessel, provide accommodation for 38 individuals, and provide a command and control center for spill-fighting operations. Each vessel includes a helicopter landing pad, has a barge towing capacity, and will have its own onboard oil recovery equipment.

"The launching of the California Responder and the continued construction at the shipyards in four Gulf states is one of the most visible signs of our continued progression toward operational readiness," said **John D. Costello**, president of the MSRC. "The sophisticated planning going on and

training of personnel with our five regional offices may not be as visible but is just as important. Our employees have made a commitment to oil spill response and to the marine environment."

The first of four boats, the Washington Responder, was launched at the Halter-Lockport yard two weeks after the California Responder.

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

Circle 32 on Reader Service Card

CALIFORNIA RESPONDER Equipment List

Main engines.....	Caterpillar Thruster.....
Thruster.....	Schottel Thruster engine.....
Caterpillar Generator engines.....	Caterpillar Reduction gears.....
Reintjes Steering controls.....	EDI Windlass, capstan.....
Fritz Culver Cranes.....	Utility Steel Coatings.....
International Sound-powered telephone.....	Hose-McCann GPS.....
Magnavox Loran.....	Northstar Radar, navigation plotter, weather fax, depth sounder, and water temperature gauge.....
Furuno Autopilot, speedlog, compass.....	Sperry Depth sounder.....
Furuno VHF & SSB radio.....	Sailor Waste compactor.....
Custom Compactor Oil transfer pumps.....	Frank Mohn



Circle 20 on Reader Service Card

TOTE Awards Tampa Ship Contract To Stretch RoRo

Totem Ocean Trailer Express (TOTE), Inc., of Seattle, Wash., recently announced that it has awarded a contract to Tampa Shipyards in Florida for the job of extending the length of TOTE's newest RoRo, the Northern Lights, prior to its inauguration into the Alaska

trade during the summer of 1993.

Insertion of the 90-foot midship section, which represents one of the largest commercial shipbuilding projects in the country, should be completed by March 1993. The stretching will make the Northern Lights equal to its two 790-foot sister ships in the TOTE fleet, the Great Land and the Westward Venture.

Formerly the SS Puerto Rico, the Northern Lights was built in 1973

for Puerto Rico's government-owned shipping company by Sun Shipbuilding, Chester, Pa. TOTE has invested nearly \$50 million in the Northern Lights, including purchase price, upgrading and reconstruction.

The Northern Lights will be operated during the peak shipping months of April to October and act as a backup during the off season, when TOTE's other ves-

sels undergo modernization.

TOTE currently sails twice weekly between Tacoma, Wash., and Anchorage, Alaska. Founded in 1975, TOTE is a subsidiary of Totem Resources Corporation.

For more information about the services and facilities available from Tampa Shipyard,

Circle 68 on Reader Service Card

December 3, 1991

Vessel - Tug
Isabell C.

1955 - Last leg of 2800-mile round trip past Statue of Liberty. Transported construction barge to George Washington Bridge, New York City. New John Deere engines ran flawlessly. Fuel costs reduced by about 22%. Power and responsiveness at low speeds also improved.

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2055 - Secure Engines
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The Isabell C. is owned and operated by Maritime Tug and Barge Inc. of Stuart, Florida. In addition to two 250-hp (186 kW) John Deere propulsion engines, this tug also operates with a 58-hp (43 kW) John Deere powered gen-set. For reliable marine power on your jobs, call Deere Power Systems at (319) 292-6060, or contact your John Deere engine distributor.

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\$14.6 Million In Orders For 'Flying Cats' To Kvaerner Yards

Seattle-based Clipper Navigation has placed a \$7.3 million order with Kvaerner Fjellstrand of Norway for a 40-meter Flying Cat design catamaran. The cat is scheduled for a March 1993 delivery.

Clipper Navigation plans to operate the 324-passenger catamaran between Seattle and Victoria.

A second 40-meter Flying Cat high-speed catamaran has been built by Kvaerner's Omastrand yard in western Norway for ferry service between Arhus and Kalundborg in Denmark. The \$7.3 million high-speed vessel will provide three round trips per day from Arhus for KatExpress, an operating subsidiary of Kvaerner Fjellstrand Shipping.

Power will be provided by two MTU 16V396 TE74L diesels with two KaMeWa model S 71 II waterjets and two ZF marine gears. Auxiliary power will be supplied by two MTU 6R 099 TA 31 diesels.

Other features on the catamaran will include: a Motion Dampening System for riding control; Furuno and Sperry Rascars; and Anschutz gyrocompass.

For free literature detailing the boatbuilding services of Kvaerner Fjellstrand,

Circle 34 on Reader Service Card

Thordon Bearings Wins \$2.1 Million Contract For Canadian Frigate Project

New Brunswick, Canada-based Saint John Shipbuilding, Ltd., has awarded Thordon Bearings, Inc., of Burlington, Ontario, Canada, a \$2.1 million propeller shaft bearings contract for the Canadian Navy's Patrol Frigate Project, Canada's first new warships in nearly 20 years.

Thordon will supply low friction, long life bearings for use in HMCS Halifax and other ships in the frigate program. The Halifax is the first of 12 new frigates, which are among the most technologically advanced in the world. Saint John Shipbuilding is the prime contractor for the \$6.2 billion contract and is building nine of the vessels.

"We're extremely proud of the fact that Thordon's advanced bearing technology was specified for the Halifax and its sister ships," said David Read, Thordon Bearing's president. "Thordon is rapidly becoming the quiet running bearing of choice for navies around the world."

Thordon is a very hard, tough, self-lubricating synthetic polymer alloy with a proven record for endurance under adverse operating conditions. It is used by navies, coast guards, work boats, fishing vessels and merchant ships in over 40 countries.

To receive additional free in-

formation about the services offered by Thordon Bearings, Inc.,

Circle 81 on Reader Service Card

MHI Receives Engine Order From HDW Shipyard

Mitsubishi Heavy Industries, Ltd., (MHI) has received an order for four MHI large-bore UE marine diesel engines from Howaldtswerke

Deutsche Werft A.G. (HDW), the largest shipyard in Germany. These UE engines will be used as main engines onboard four 2,784-TEU container ships, which HDW is building for Norasia Lines, Ltd., Switzerland.

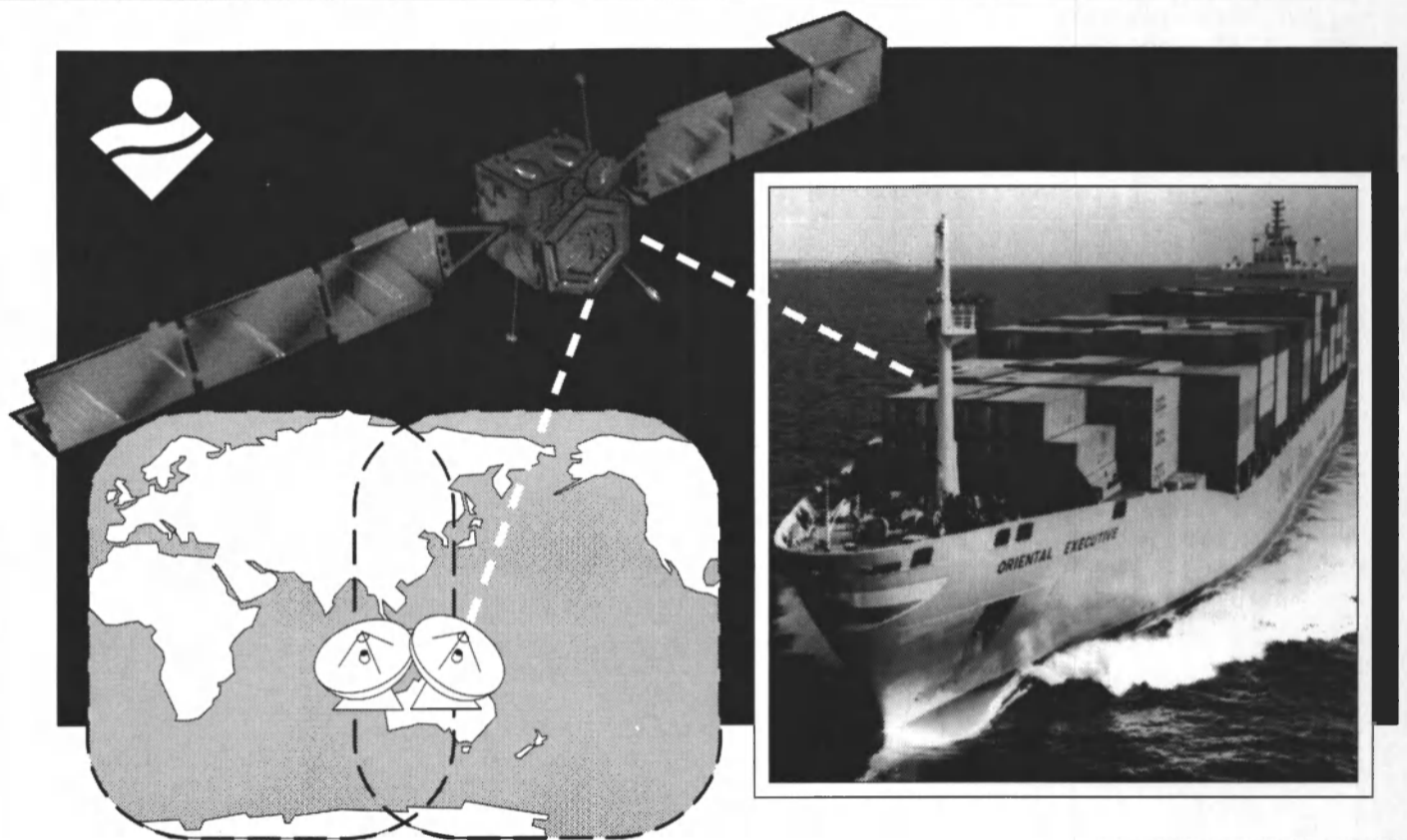
The 7UEC85LSC seven-cylinder engines ordered by HDW provide a maximum power output of 37,100 hp at an engine speed of 102 rpm. The delivery of the engines will start

in August 1993 and be completed in May 1994.

The 7UEC85LSC, MHI's newest UE engine, is designed to be a high-speed marine engine by making the piston stroke shorter and thus suitable for the main engines of fast container ships.

For additional information about Mitsubishi Heavy Industries' UE marine diesel engines,

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New Management Team Takes Over Harbormaster

Worldwide operators of Murray & Tregurtha and Mathewson Harbormaster outboard drive systems and bow thrusters will want to know that Harbormaster is still very much alive and well. Commercial vessel owners who have need for economical, movable on-deck propulsion units can obtain literature

on the newly redesigned Harbormaster Outboard Drive Propulsion Unit line.

Harbormaster Marine, Inc., located in Livonia, Mich., has bought the designs, spare parts and other assets of Harbormaster from Mathewson Corp. Led by a team of engineers and specialists formerly with Detroit Diesel, they have been redesigning and updating the 50 to 175 hp outboard line. The first of the new designs, a 150-hp model

SW3150, is about to undergo demonstration testing. Additional models rated at 250 hp and 350 hp are on the drawing boards and will soon be available.

Each Harbormaster outboard is totally self-contained marine drive system that includes engine, steerable lower unit, fuel tank, and controls, mounted on a single base. Powered by a Detroit Diesel engine through a highly efficient mechanical drive system, the Harbormaster

uses hydraulic power and control to achieve 360-degree steering and 90-degree elevation of the lower unit and propeller. Transverse mounting of the engine minimizes space utilization on the deck, and the unit can be easily transferred for use on another boat or barge.

Harbormaster Marine will offer repair parts manufactured to original specifications for earlier Murray & Tregurtha and Mathewson-built outboard drive units and bow thrusters. Over 90 percent of the wearing parts such as seals and bearings, are in stock, while other more complex parts (such as shafts and castings) can be fabricated.

Harbormaster Marine report they fully support new and earlier Murray & Tregurtha units dating back to 1940, with parts supply and technical assistance anywhere in the world.

For further information on Harbormaster Marine and its product line,

Circle 60 on Reader Service Card

GD May Sell Sealift Ships To Waterman

It is reported that General Dynamics Corporation is considering a sale of its squadron of Military Prepositioned Ships (MPS), operated by American Overseas Marine Corp., to U.S.-owned Waterman Steamship Corp.

General Dynamics was close to an agreement on the purchase of American Overseas by the Danish-owned shipping company Maersk, Inc. However, it is believed that General Dynamics' new discussions with Waterman may be in response to Congressional concerns over the issue of foreign-control of Navy sealift assets and the possible loss of 55 jobs at American Overseas' Quincy, Mass., headquarters in the event of a merger with Maersk.

The 13 MPS ships are divided into three squadrons that are commercially operated for the Navy's Military Sealift Command (MSC). Squadron one with four ships is operated by Waterman, squadron two operated by Maersk consists of five vessels and American Overseas' squadron three has four ships.

Although Maersk is Danish, its Madison, N.J.-based subsidiary that operates MPS squadron two is operated as a U.S. company.

Avondale Gulfport Yard Awarded LCAC Contract Worth \$3.3 Million

Avondale Gulfport Marine, Inc., a subsidiary of Avondale Industries, Inc., was recently awarded a \$3.3 million contract for the fabrication and delivery of spares for the U.S. Navy's Landing Craft, Air Cushion program. The parts are expected to be delivered starting in the second quarter of 1993 and being completed in the second quarter of 1994.

LCACs are 87-foot amphibious assault craft carried aboard and deployed from U.S. Navy dock landing ships.

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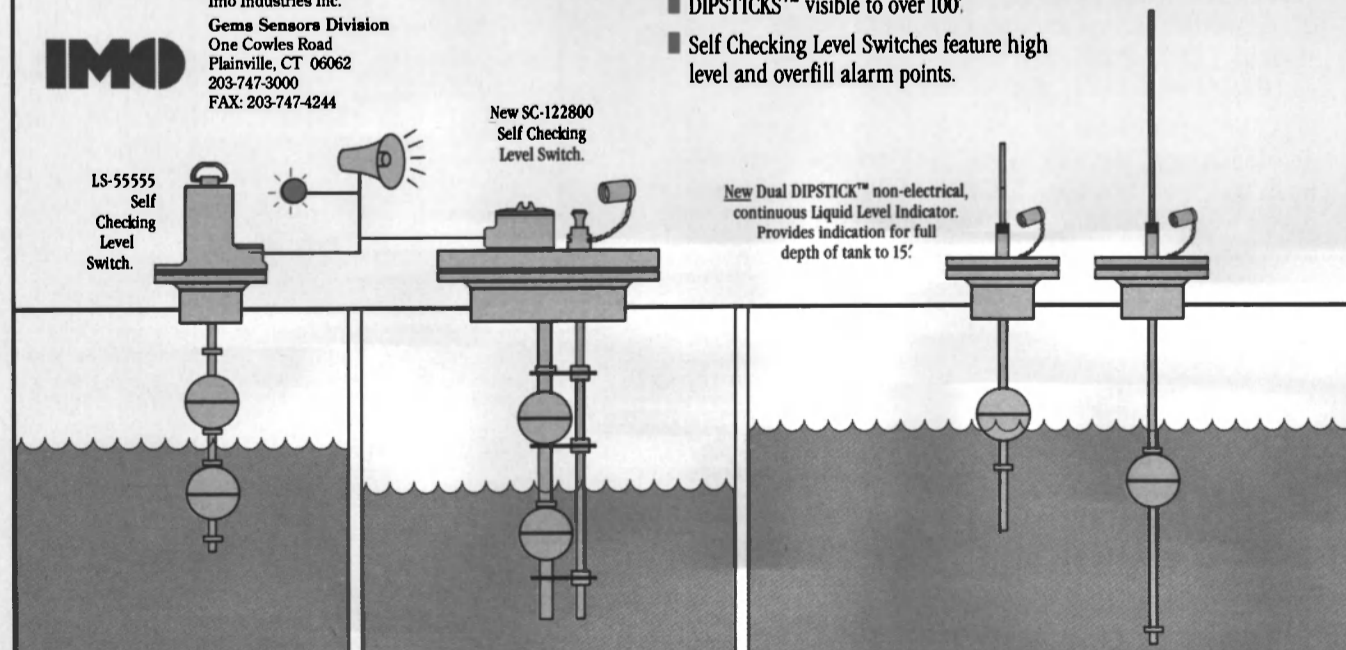
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the Houston Pilots Association and a 90-foot sportfishing vessel.

The MBARI boat will feature a remotely operated vehicle (ROV) moon pool with theater management system (TMS) compensating crane. Other features and equipment will include a traction winch with a reel winch and level wind, slow-speed dynamic positioning and tracking, variable draft, an ultra-short base

ing system, acoustic profiler, depth sounder, log, conductivity temperature depth winch.

of the SWATH design accommodate the re- a stable research platform which to deploy the DVs and other ocean- umentation, under the ing condition that typi- off the central Califor-

to the inherent stabil- WATH design, Swath ns will incorporate its ke buoyancy structure table cavitation damp- ire which will increase herent stability of the

ry of the vessel is sched- 1994. terature detailing the onstruction services of 1 Systems, n Reader Service Card

amed Manager, Affairs il Marine

. **Loefstedt** has joined ine, Inc., New Orleans, ger, regulatory affairs. arge transportation ew Orleans headquar- **loefstedt** will serve as tion' principal liaison d national government and agencies and wa- istry organizations. **loefstedt** recently concluded service with the U.S. l. He served in New ed assignments since ecently as Chief of the ict's Marine Safety Di- viously, he held com- ns in Mobile, Memphis aff positions in Wash-

Marine, Inc., is the d largest full service gest overall inland wation company, provid- carrier and contract s throughout the Mis- r and Gulf Intracoastal ystems. With over 70 erience, the company oximately 60 towboats, 30 hopper barges and es. National Marine is d subsidiary of Vectura Pittsburgh-based hold-

ing Boat for U.S. Owner

t aluminum SWATH vessel designed by

Modern Marine Design Co. was recently launched in Vancouver, Wash., for owner **Buz Alison**.

The vessel has tandem struts and circular section, bulbous stern pontoons. The "Alison 87" will have a light ship displacement of 50 long tons and full load displacement of 82 long tons.

Noteworthy features are attractive styling, yacht-like interior, stable ride (even at low speeds), spacious deck arrangements, and fishing and observation deck which

is low to the water and extends the full length of the vessel.

Powered by twin Merlin 450-hp engines, with Twin Disc reduction gears, turning Rice 44-inch, four-bladed propellers. The engines are located inside the pontoons of the boat. She has a speed of 14 to 15 knots.

For free literature detailing the design services of Modern Marine Design,

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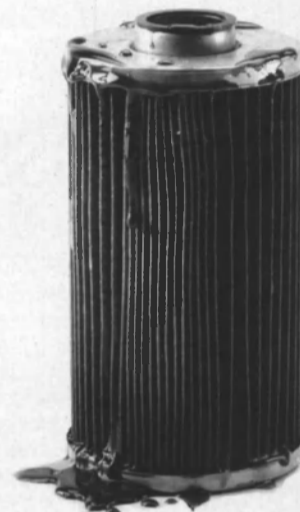
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AFFIX
POSTAGE

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AFFIX
POSTAGE

Zidell Awarded \$8 Million Contract For Double-Hulled Barge

Zidell Marine Corporation, Portland, Ore., was recently awarded an \$8 million contract, its largest-ever, by Brix Maritime and British Petroleum (BP) for the construction of a double-hulled petroleum barge.

According to **Bill Globel**, vice president of Zidell, Inc., the 65,000-barrel capacity barge, the first on the West Coast to meet the U.S. Coast Guard's proposed standards for oil tankers under the Oil Pollution Act of 1990, will take over eight months to complete.

BP, one of the world's five biggest oil companies and the largest supplier of marine fuel in the Northwest, will use the barge primarily

to transport fuel for commercial marine vessels from its refinery in Ferndale, Wash., to its West Coast terminals in Portland, Seattle and Port Angeles, Wash. BP will charter the barge from Brix Maritime of Portland, who will provide the towing service for the barge.

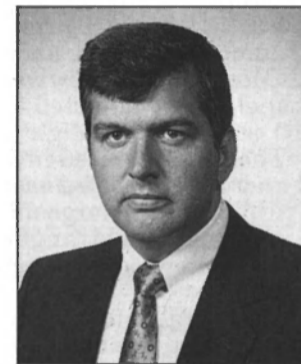
With a length of 328 feet, breadth of 76 feet and 22-foot deep with a five-foot trunk, the barge will weigh approximately 2,200 tons.

To receive additional information about the services and facilities available from Zidell Marine Corporation,

Circle 1 on Reader Service Card

Jeffboat Names R. Herre VP Of Engineering

Jeffersonville, Ind.-based Jeffboat has recently named **Robert P. Herre** as its vice president of engineering.



Robert P. Herre

Mr. Herre joined Jeffboat in August of 1991 as engineering manager, after working as general manager of Walker Boat Yard in Paducah, Ky. Prior to that, he held several management positions in the operations department of Valley Line Company, St. Louis, Mo., where he worked for 15 years after graduating from the U.S. Merchant Marine Academy with a degree in marine engineering. Mr. Herre also holds an M.B.A. from Xavier University, Cincinnati.

Since 1938, Jeffboat has been a major designer and shipbuilder for barges, towboats and a variety of river and ocean vessels. Jeffboat is a division of American Commercial Marine Service Company, which also operates the Louisiana Dock shipyards in New Orleans and St. Louis.

Richard W. Butler Receives ASTM's Haas Award

Richard (Rick) W. Butler, supervisor of administrative and technical data for Deutsch Metal Components in Gardena, Calif., is the 1992 recipient of Committee F-25 on Shipbuilding's John H. Haas Memorial Award.


The committee is one of 132 such technical committees belonging to the American Society of Testing and Materials (ASTM). The award, presented to Mr. Butler at the committee's recent meeting in Pittsburgh, was established in 1986 and is given for formal recognition of an individual's outstanding contribution to the work of the committee.

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NATIONAL WATERWAYS CONFERENCE 1992 ANNUAL MEETING September 23-25, St. Louis

One of the inland waterways industry's major meetings of the year, the National Waterways Conference's 1992 Annual Meeting and Waterways Exposition, will be held from Wednesday, September 23 to Friday, September 25, 1992 at the Stouffer Concourse Hotel in St. Louis. Some 400 waterway leaders from all parts of the nation are expected to attend.

Taking a cue from this year's 500th anniversary of Columbus's epic voyage of discovery, the theme of the NWC convention will be: "Rediscovering America's Waterways: Reaping the Riches of the River Valleys."

Conference chairman **J.D. (Johnnie) Laman**, manager of marine and international operations for Dow USA, said some 30 speakers, panelists and moderators will participate in the three-day program. It will include two luncheons, six panel discussions, several business sessions and a banquet aboard a showboat.

"Our agenda will focus on several thorny issues presently confronting

the maritime industry," Mr. Laman said. Panels will explore such topics as expanding the financial base underpinning the navigation infrastructure, assessing the accumulative impact of user fees, overcoming restrictions on maintenance dredging, modernizing the Upper Mississippi Waterway, and managing reduced Missouri River flows.

For the fourth year, a Waterways Exposition will be part of the NWC annual meeting. A section of the main ballroom will be used for exhibits.

To afford all attendees an opportunity to visit the exposition, coffee breaks and pre-luncheon receptions will be scheduled in the exhibit area. Other sections of the ballroom will be used for general sessions and luncheon meetings.

Four other organizations plan

meetings in conjunction with the NWC convention. These include the Arkansas Waterways Commission, which will hold its regular monthly meeting in St. Louis; Inland Rivers Ports & Terminals, Inc., which will hold its fall meeting as well as a board meeting; Missouri

Ports Association, which involves all of the state's Missouri River ports; and the U.S. Section of the Permanent International Association of Navigation Congresses (PIANC), which

plans a breakfast meeting.

There will be two special reports—that of NWC president **Harry N. Cook**, who will deliver his annual message at the opening session, and that of the Army Corps of Engineers' Civil Works Director, who will review recent developments af-

fecting the river and harbor program, which will be the kick-off presentation on the second morning.

At press time, the Civil Works Director was Maj. Gen. **Arthur E. Williams**, who has been in the post since April 1991. However, there is a possibility that he may be named Chief of Engineers in the near future; he is said to be on the "short list" of possible appointees.

Keith R. Gosney, president of Pinnacle Transportation, Inc., is chairman of the NWC General Arrangement Committee. He and his committee are making plans for all the various events which are part of the organization's annual meeting.

On Wednesday morning, September 23, a guided tour will visit Melvin Price Lock and Dam (formerly known as Lock and Dam 26). The first 1,200-foot lock chamber is now in use, but construction is continuing on a second 600-foot chamber. The facility is located at Alton, Ill., about 25 miles up river from St. Louis.

The Waterways Exposition will





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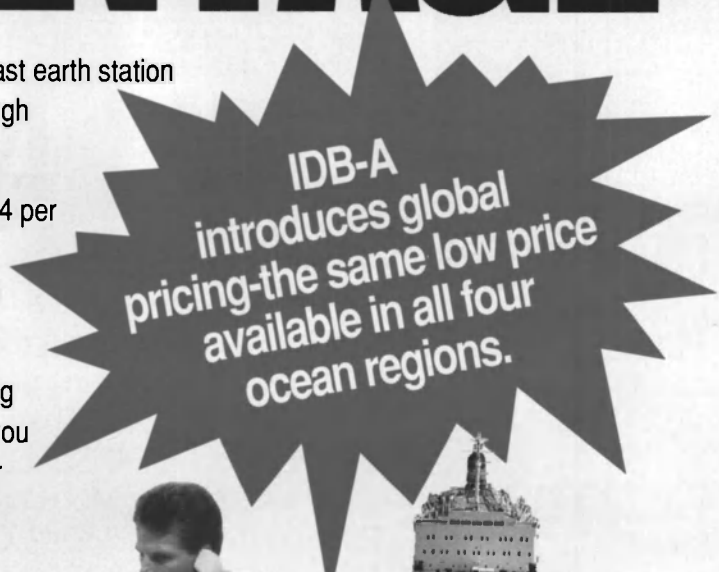
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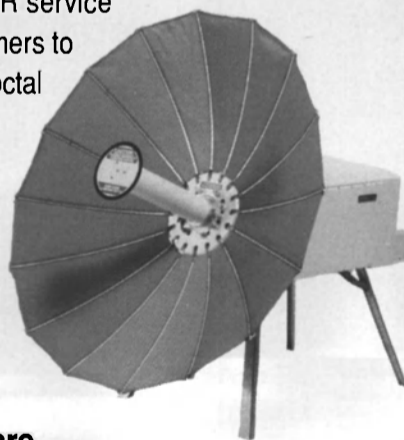
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open and convention registration will begin on Wednesday afternoon. An early arrivals' reception is scheduled that evening.

After Mr. Cook's report on Thursday morning, September 24, the panel discussion sessions will begin. The morning panels will concern the growth outlook for river valley industries and navigation financing strategies. The opening luncheon, with a featured speaker to be announced later, will come at noon.

During the afternoon, other panels will examine the escalation in maritime user fees and user taxes and consider regulatory problems, principally involving endangered species and wetlands protection.

Annual meeting attendees will

leave the hotel for their annual reception and dinner aboard the Showboat Goldenrod, which is anchored in the Missouri River at nearby St. Charles. On the recently restored showboat, which is registered as a National Historic Landmark, delegates will see a Broadway show, "I Do, I Do."

The status report on the Army Corps of Engineers' civil works program will launch the final day's program.

Two morning panels are planned, and they will deal with water shortages on the Missouri River and the need to modernize the Upper Mississippi Waterway.

Among those participating on the Upper Mississippi program

will be **Christopher J. Brescia**, president of MARC-2000, the group recently organized to promote the replacement of congested locks on the waterway; **Dudley Hanson**, planning chief in the Corps of Engineers' Rock Island District, who is head of a team studying navigation improvements on the Upper Mississippi, and **Holly Stoerker**, executive director of the Upper Mississippi River Basin Association.

As at previous annual meetings, a spouses' program is planned. It will include a morning visit to the Missouri Botanical Gardens, lunch in the historic Lemp Mansion and afternoon shopping on Cherokee Street, a recently renovated neighborhood.

The Stouffer Concourse Hotel has

set aside a block of rooms for the NWC annual meeting, but reservations must be made before September 9. The rooms are available at deeply discounted rates: \$89 single/\$99 double, plus tax.

Because the headquarters hotel is located near St. Louis International Airport, shuttle buses have been arranged to take attendees to and from downtown restaurants and stores.

For more information, contact NWC's convention coordinator, **Verna M. Boucher**, National Waterways Conference, Inc., 1130 17th Street, N.W., Washington, D.C. 20036; telephone: (202) 296-4415; fax: (202) 835-3861.

New Sources Of Revenue Needed To Fund Inland Waterways Projects

By Harry Cook, President
National Waterways Conference Inc.

Since it was founded 32 years ago, the National Waterways Conference has focused its resources and efforts in one direction: promoting national policies aimed at insuring the long-term health and vitality of the shallow-draft navigation industry.

Over the years, NWC has led the fight against arbitrary and oppressive waterway user taxes and user fees. At the same time, the organization has fought for continued Federal funding, at adequate levels, for priority navigation programs—no easy feat in a time of mushrooming budget deficits and massive spending cutbacks.

As a central element of the NWC's mission, we have long worked to document the public value of waterway programs and to show their overall importance to the American economy. Navigation projects generate benefits which are widely dispersed throughout the river valleys and coastal regions.

In furtherance of its education and information program, NWC conducts economic research, publishes papers and reports, issues a highly acclaimed newsletter, sponsors seminars on waterway-related topics, holds annual meetings and provides Washington representation.

In seeking to influence maritime policy, NWC first tries to develop a consensus within the waterways industry. As a result, task forces are often set up to thrash out controversial issues. Since 1974, NWC has sponsored monthly "waterways roundtable" luncheons. During the long Congressional fight over replacement of Lock and Dam 26 near St. Louis, an alliance of Washington-based executives of waterway-related companies and associations was organized.

In these efforts, NWC has served as the catalyst.

In authorizing replacement of L&D 26, Congress insisted on institution of a waterway fuel tax begin-

ning in 1980. This was the first user tax on waterway commerce. In the decade since then, about a dozen additional user fees and user taxes have been imposed.

Accumulatively, the impact of all these charges is rather dramatic. Shipping companies, in fact, have begun to divert some cargoes from New England and Puget Sound ports to Canada. Still, Federal agencies—particularly the U.S. Coast Guard—are planning to implement even more user fees.

Unless the Federal government stops piling more and more user fees, there charges are going to rob U.S. ports of valuable cargoes and also cause some U.S. products to lose out in important overseas markets.

Some of the user fees and user taxes are going for deficit reduction or simply accruing in the general fund. A few of the charges produce revenues which are used for navigation infrastructure programs. For instance, the inland waterways fuel tax pays one-half of the cost of lock-and-dam replacements.

Even so, the demand for new projects during the next decades far outstrip the amount of fuel tax revenues which are in prospect.

As a result, waterways proponents are beginning to look at supplemental revenue sources: tapping beneficiaries of other waterway programs, such as municipal water supply, hydropower or recreation or establishing new financing plans based on capacity utilization, so-called basin accounts, or navigation cost allocation system. The effort to find new revenues is crucial to the waterway industry's continued viability, and NWC intends to be a major player in locating revenues to support a first-class waterway system.

Who's Who In NWC

The National Waterways Conference lives up to its name: it is a "conference" of navigation interests. The membership diversity is reflected in its 75-member board of directors, which represents five separate membership categories: waterway carriers, shippers, shipyards and other waterway services, port authorities and other public entities, and industry associations.

The leadership of the organization, which was founded in 1960, reads like a "who's who" in the inland waterways industry.

Completing his first term as chairman of the board of directors is **J.D. (Johnnie) Laman**, manager-marine and international operations for Dow USA.

W. Richard (Dick) Christensen, serves as vice chairman. He is vice president-marine/surface transportation and facilities for Ashland Petroleum Co.

The conference's long-time staff executive is its president, **Harry N. Cook**. Mr. Cook, a former journalist, joined the NWC in 1964 and has held the post of president since 1978.

First vice president is **Robert W. Portis**, port director of the Tulsa Port of Catoosa, head of navigation on the McClellan-Kerr Arkansas River Navigation System.

The four vice presidents are:

Wallace A. Gieringer, executive director of the Pine Bluff-Jefferson County (Ark.) Port Authority; **Den- nis L. Kirwin**, vice president, Midland Marine Co.; **Charles R. Lehman**, vice president, American Commercial Barge Line Co.; and **Donald G. Waldon**, administrator, Tennessee-Tombigbee Waterway Development Authority.

William J. Hull, an attorney, is the vice president and counsel. The secretary is **H. Nelson Spencer III**, publisher of the *Waterways Journal*, and the treasurer is **Donald C. McCrory**, director, Memphis and Shelby County Port Commission.

NWC's immediate past president is **Berdon Lawrence**, president,

Hollywood Marine, Inc., who is currently serving as a member of the Inland Waterways Users Board.

Members of the NWC executive committee include the following: **Nicholas J. Barchie**, president, Warrior and Gulf Navigation Co.; **Robert G. Brave**, executive director, Little Rock Port Authority; **J. Ron Brinson**, president and chief executive officer, Port of New Orleans; **W.R. (Ron) Coles**, consulting engineer; **Brian L. Garrity**, supervisor-water distribution system, IMC Fertilizer, Inc.

Keith R. Gosney, president, Pinnacle Transportation, Inc.; **Carl B. Hakenjos**, senior marine consultant, Waldemar S. Nelson and Co.; **David W. Kreutzer**, general manager-river division, Consolidation Coal Co.; **Gary P. LaGrange**, executive director, Port of West St. Mary.

Offa S. Nichols Jr., president, Warrior-Tombigbee Development Association; **R. Barry Palmer**, executive director, DINAMO; **Gale R. Rhodes**, manager, river transportation division, AEP Fuel Supply; **T. Mark Simmons**, Yazoo-Mississippi Delta Levee Board; and **L.E. (Les) Sutton**, president, Ingram Towing Co.

Members of the board of directors serve three-year terms. At the general membership meeting to be held at the forthcoming St. Louis convention, 25 board members will be elected or re-elected to new terms. Some 400 companies now belong to NWC, making it one of the largest industry associations.



Trinity-Beaumont Acquires 2nd Large Dry Dock

The Gulfport, Miss.-based Trinity Marine Group (TMG) has acquired a drydock with a lifting capacity of 20,000 long tons capable of servicing a wide variety of ships, offshore structures and barges. The drydock will be placed in service at Trinity-Beaumont (Texas) in late

1992 and will complement another 15,000-ton floating drydock scheduled to go into service there on August 15th. Overall, the new drydock is 586-feet long, 137.5-feet wide and has 108.583-feet clear width between the wing walls. Maximum draft over deck is 31.91-feet.

John Dane III, president of Trinity Marine Group, said that both Trinity-Beaumont drydocks are capable of handling a wide variety of

ship and rig repair, conversion and modification work including double-hull conversions to meet OPA90 requirements. "We can also handle Navy service life extension programs (SLEP), as well as very large and wide ocean going barges," he continued.

The new drydock is fully certified by the U.S. Navy to MIL-SPEC-1625 at 10,800 long tons and is in excellent condition according

to **Mr. Dane**.

TMG's president stated that the new drydock has already serviced many Navy ships and that most of the Navy vessels planned for homeporting on the U.S. Gulf Coast can be handled by one or both of the Beaumont drydocks, with the exception of a few very large warships such as aircraft carriers and some submarines. Trinity-Beaumont will add a complete repair department to efficiently handle the new repair business.

For free literature about the services available from Trinity Marine Group and its Beaumont shipyard,

Circle 2 on Reader Service Card

Saudi's Begin Major VLCC Acquisition Program

Two Saudi Arabian organizations, Vela International Marine and the National Shipping Company of Saudi Arabia (NSCSA), have invited bids for the construction of double-hulled tankers totaling two million barrels in capacity.

Vela, Saudi Aramco's chartering arm, is in the market for an additional three tankers of 280,000 dwt, which constitutes the third-phase of its fleet investment program.

The first-phase of Vela's ordering program was initiated in February 1991 with six, 280,000-dwt tankers, split between Mitsubishi Heavy Industries and NKK Corporation of Japan. A further six, 380,000-dwt newbuildings were ordered from Denmark-based Odense Staal-skibsvaerft and Hyundai Heavy Industries of South Korea.

NSCSA is pursuing a plan for the acquisition of between two and five VLCCs, with all the newbuild tonnage likely to be chartered to Saudi Aramco. Depending on the type of construction adopted, NSCSA's program could be worth \$500 million to \$600 million. Upon completion, the vessels will be operated by Odfjell Tankers, a subsidiary of the Norwegian shipping group Storli.

In addition to the Japanese and South Koreans, certain European shipyards have also been included in both companies' tender invitations.

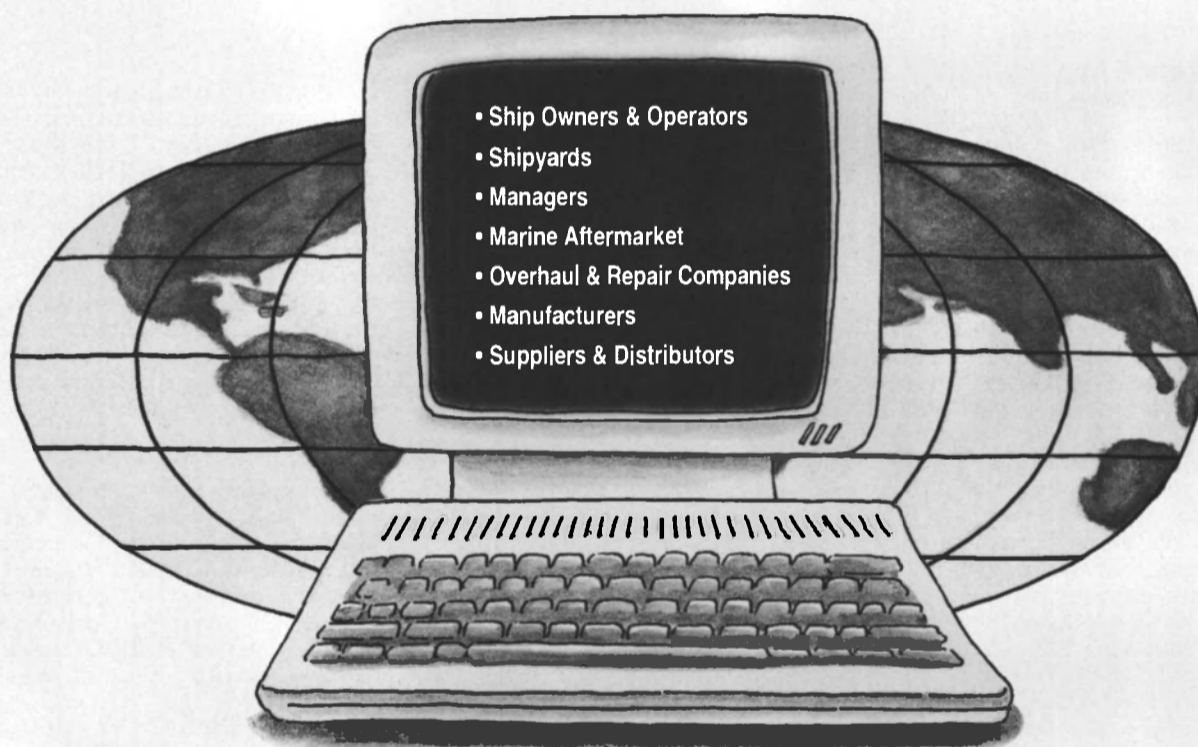
Blohm + Voss Receives \$1.7 Million LPG Refit Job

A \$1.7 million contract was recently awarded to the German shipyard of Blohm + Voss for the refit of the 29,528-dwt, Hong Kong-registered, LPG-carrier Cavendish.

The vessel is to receive general repairs including cargo pumps and insulation renewal.

The vessel is owned by Furness Withy, which is now owned by Hamburg-Sud. The repair operation is a life extension operation.

The Global Marine Parts Department...



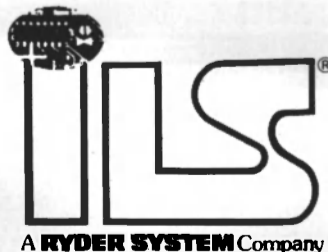
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Circle 20! on Reader Service Card

Phillyship Yards Receive ABRs

Joel H. van Diepen, chairman of the board of Phillyship, recently announced that Phillyship of Charleston and Phillyship of Savannah have recently received their Agreements for Boat Repair (ABRs) from the U.S. Navy.

Following in the footsteps of their Northern affiliates, Phillyship of Charleston and Phillyship of Savannah have focused primarily on ship repair. With the ABRs, both yards will now be able to compete for Navy work.

Since their opening, both yard have successfully performed all types of ship repair and other marine specialty work, serving MSC, MarAd and commercial, domestic and foreign customers.

Headquartered in Philadelphia, Phillyship operates out of all major ports from Boston to Jacksonville. Led by general managers Carl H. Beal Jr. in Charleston and Audrey L. Degulo in Savannah, these op-

erations are an important part of Phillyship's network of managers, engineers, technicians, and craftsmen.

For free literature on the ship repair capabilities of Phillyship,

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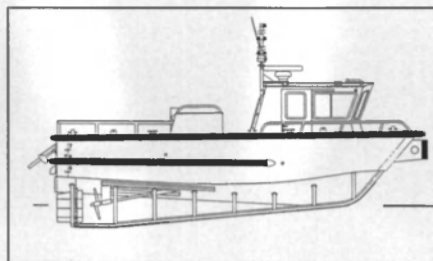
\$4 Million Contract To Munson Manufacturing To Build Support Boats

The Marine Spill Response Corporation (MSRC) has awarded a contract to build 16 oil spill response support boats to Munson Manufacturing, Inc., Edmonds, Wash. The contract totals nearly \$4 million.

The support boats will be used principally to set and control oil boom during a spill response. They are designed to be deployed from the larger MSRC oil spill response vessels currently under construction at Trinity Marine Group shipyards in

Louisiana, Mississippi, and Texas, and Bender Shipbuilding & Repair Co., Inc., Mobile, Ala.

Each aluminum support boat will be 32 feet long, 13 feet wide and approximately 7 feet deep at midship. They will be powered by



Outboard profile drawing of one of the sixteen 32-foot-long support boats that will be built by Munson Manufacturing, Inc., for the MSRC.

twin Caterpillar 3208 TA diesel engines rated at 315 hp each.

The first six support boats are scheduled for delivery in October 1992. Completion of all 16 vessels is expected by January 1993. The ves-

sels will be assigned to the five MSRC regional response centers located around the country. Two of the support boats will remain in the northwest.

MSRC is a not-for-profit corporation established to provide a best effort response to large oil spills in certain tidal and coastal waters of the United States. MSRC will focus on satisfying many of the requirements for maritime spill response and capability established in the Oil Pollution Act of 1990.

Grants for the purchase of support boats and other vessels and equipment are provided MSRC from the Marine Preservation Association (MPA). MSRC will use the grant from MPA to purchase approximately \$400 million in capital equipment and facilities prior to operational readiness in the summer of 1993.

For free literature detailing the boatbuilding services of Munson Manufacturing,

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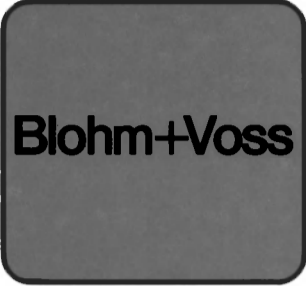


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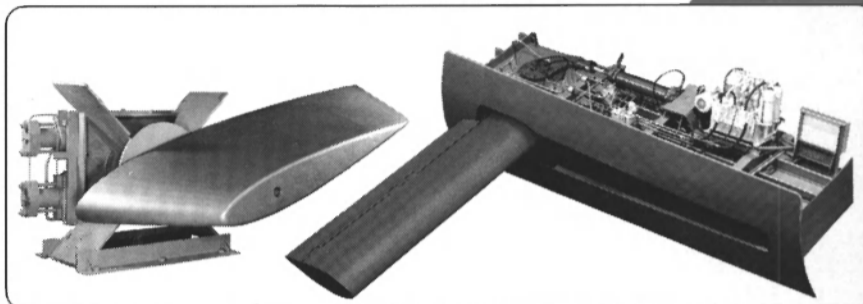


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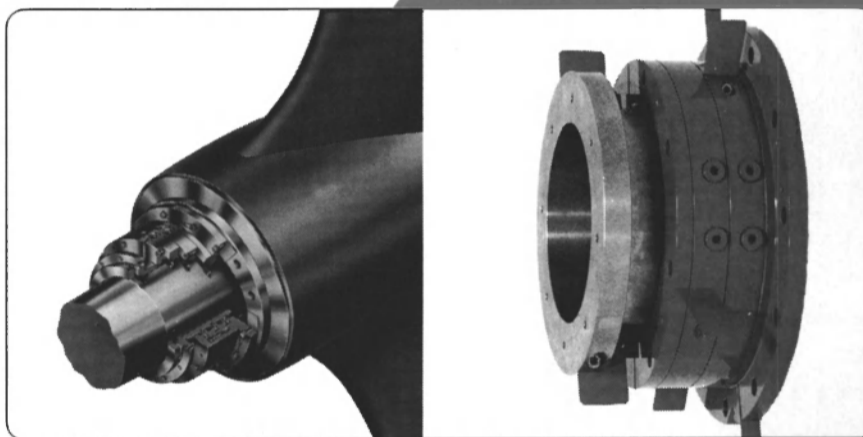


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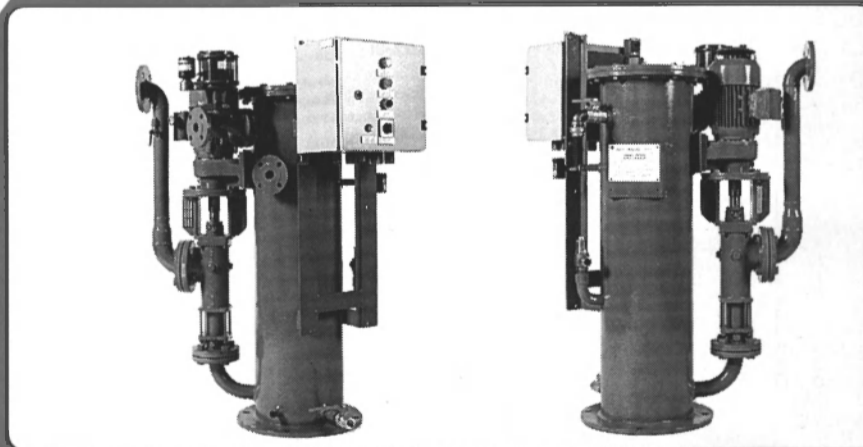


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Propulsion Update

Aquamaster-Rauma To Deliver Second Set Of Azimuthing Thrusters For Finnish Icebreaker Program

Aquamaster-Rauma, of Rauma, Finland, one of the world's leading manufacturers of propulsion units, has received a second order from the Finnish Board of Navigation for the company's largest set of Aquamaster azimuthing thrusters, to be delivered in June 1993 to Finnyards' shipyard. The new azimuthing thrusters will be fitted onboard the second multipurpose government icebreaker being built by Finnyards and scheduled for delivery in early 1994. The first Finnish icebreaker in the class, ordered last October, also received a set of Aquamaster azimuthing thrusters.

The thrusters are based on a new construction, type ARC 1, which has been developed specifically for icebreakers. The thrusters, like the vessel itself, will meet the Detnorske Veritas "Icebreaker Polar 10" ice class standards, and have been dimensioned to operate in ice more than 5.9 feet thick.

Both of the icebreaker's thrusters are rated at 7.5 MW and will be able to absorb over 2 x 15,000 hp in open water. The thrusters are equipped with fixed pitch 4.2-meter (13.8-foot)

diameter propellers mounted in nozzles.

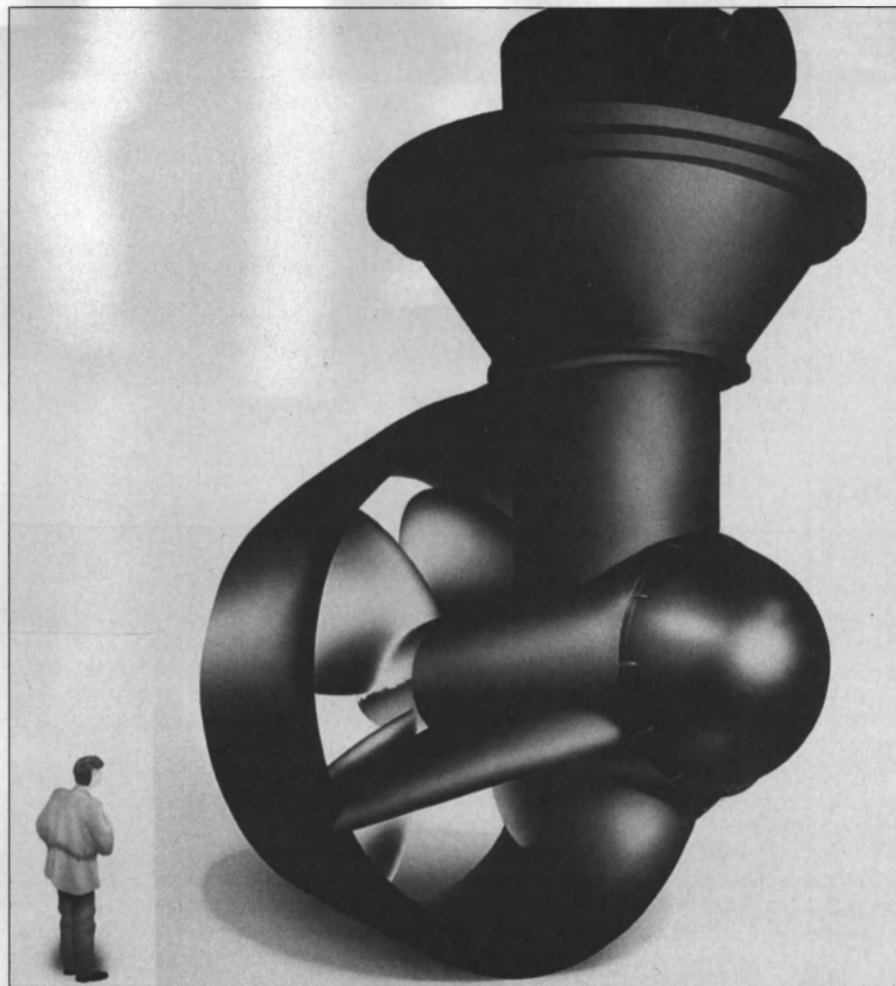
The thrusters generate a steerable thrust force that accelerates the vessel forward, astern and sideways. This allows the thrust force to be used for icebreaking, rolling the ship or cleaning and widening the channel.

The vessels will operate in winter as icebreakers and in the open water season on various tasks, such as laying cables, anchor handling and towing.

The Aquamaster azimuthing thrusters will give each icebreaker a 196-ton bollard pull.

Having invested heavily in improving the reliability, performance and versatility of steerable propulsion units, the development and manufacture of the two giant azimuthing thrusters has given Aquamaster-Rauma the opportunity to show that units of this kind can safely be used in high power ranges and tough ice conditions.

Aquamaster-Rauma also manufactures Rauma deck machinery and Unex ship's boilers and waste water treatment plants.



The 7.5-MW, Aquamaster US ARC 1 azimuthing thruster.

For free literature describing units or other extensive product line, Aquamaster-Rauma's propulsion **Circle 43 on Reader Service Card**

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Circle 26 on Reader Service Card

Newport News Receives Two Commercial Contracts For Ship Repair Work

Newport News Shipbuilding, Newport News, Va., recently announced the receipt of two commercial ship repair contracts.

Maersk Line, Ltd., Madison, N.J., has awarded Newport News a five-ship contract worth over \$4 million to perform drydocking, repair and overhaul work. This is the shipyard's first multiple ship contract since placing renewed emphasis in the commercial ship repair market.

The nearly identical Roll-On/Roll-Off ships belong to the U.S. Military Sealift Command (MSC) and are operated by the London-based Maersk Line.

The first ship will dock at Newport News on August 18, with the remaining ships arriving at two-month intervals. Work on each ship will be similar. Each ship will be in the yard up to 30 days, with the last ship scheduled for completion June 1993.

"We're proud of this contract since it was awarded in a competitive bid against major shipyards in the region," said ship repair director **Bob Leber**. "Working five ships consecutively also presents an excellent opportunity for our employees to carry over experiences from one ship to benefit another."

In a second contract, Kloster Cruise Ltd. of Coral Gables, Fla., awarded Newport News a contract worth over \$400,000 to perform bow repairs and drydocking work on the cruise ship Seaward.

The cruise ship will arrive at Newport News September 20 and all work will be completed within 10 days.

Newport News Shipbuilding is a Tenneco subsidiary with 26,000 employees. It is Virginia's largest private employer and the Western Hemisphere's largest privately owned shipyard.

Iranian Ship Orders Go To South Korea

Marking the largest development in its commercial fleet since the mid-1980s, Iran is set to award \$280 million in new ship orders to South Korean shipyards.

Reports indicate that Hyundai Heavy Industries has sealed a \$140 million order from Islamic Republic of Iran Shipping Lines (IRISL) comprising four multipurpose cargo ships to be delivered during the first half of 1994.

An additional \$140 million group of four multipurpose vessels is said to be the subject of a letter of intent with Daewoo Shipbuilding. It is expected that contractual arrangements with both yards will include options on two more ships.

IRISL's liner fleet is composed of approximately 25 vessels built 15 to 20 years ago and deployed in five

main liner trades to the U.K./Northern Europe, the Mediterranean, the east coast of South America, Australia and Japan/Far East.

The new ship designs will reportedly be in the 20,000 to 25,000-dwt range and incorporate a breakbulk/container cargo handling capability.

Iran's last major fleet acquisitions consisted of sixteen 43,000-dwt bulkers built by Daewoo between 1985 and 1986.

Southwest Marine Wins \$5.8 Million MarAd Contract

The U.S. Maritime Administration (MarAd) has awarded a \$5.8 million contract to Southwest Marine, San Pedro Division, of Terminal Island, Calif., for the shipyard upgrading of the Ready Reserve Force (RRF) breakbulk vessel Cape Girardeau. The work is scheduled

to take 150 days to complete.

The Cape Girardeau will receive yard work and sealift enhancement features that are designed to maintain and improve the military usefulness of the ship.

For additional literature about the services and facilities available from Southwest Marine shipyard,

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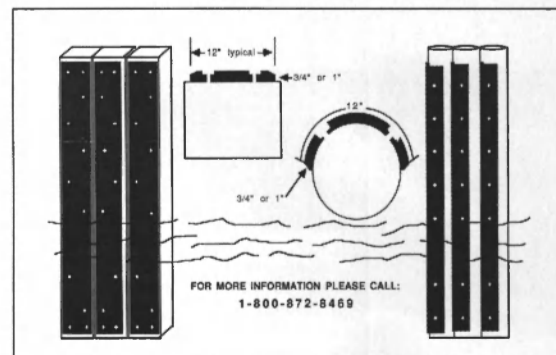
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Offshore Systems Wins \$1.3 Million Contract For Electronic Chart Systems

Offshore Systems, Ltd., (OSL), of Vancouver, Canada, has been awarded a \$1.3 million contract from the Canadian Hydrographic Service (CHS) for supplying and supporting a number of Electronic Chart Display and Information Systems (ECDIS).

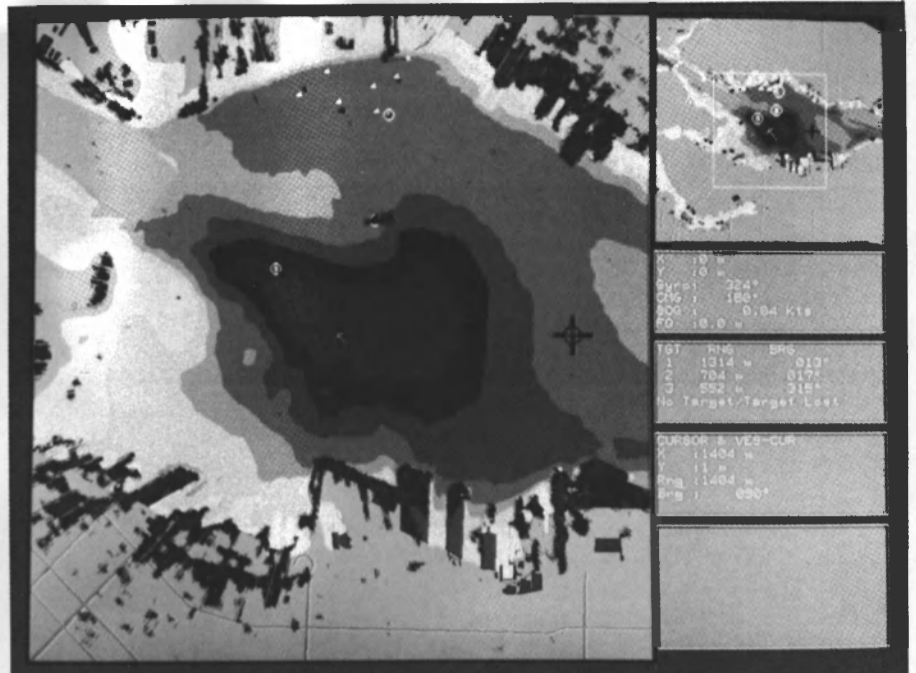
The multi-year "Electronic Chart Demonstration Project" is based on the Canadian Government's Public Review Panel on Tanker Safety and Marine Spill Response Capability which identified spill prevention as the highest priority for protecting the coastal and marine environment. The panel recommended that: "In order to reduce the risks of accidents the CHS (must) expedite developments of electronic charting technology and the reburied infrastructure, then introduce regulations requiring the use of electronic charts on all tankers in Canadian waters."

Under this contract OSL will deliver six of its new Electronic Chart/Precise Integrated Navigation Systems (ECPINS) this year. ECPINS links precise navigation and radar

data to electronic vector charts. These systems will comply with all the very high requirements of the International Maritime Organization (IMO) for ECDIS. OSL will also provide both the shipboard Differential Global Positioning System (DGPS) equipment and the DGPS reference service for the participating ships. Subsequently OSL will install the ECPINS systems and provide comprehensive training and support.

A total of 12 ships ranging from tankers to ferries will use the systems for a minimum of six months as an aid in grounding avoidance and to increase navigation efficiency in congested waters. At the completion of the demonstration project the systems will be installed on Canadian government vessels.

The major objectives of this CHS program are: demonstration of ECDIS technology as an aid in grounding and collision avoidance, particularly for vessels carrying energy commodities or hazardous goods; gathering of practical field experience with ECDIS under a variety of operating conditions; provision of the basic background knowledge necessary prior to any appropriate regulatory action such as changes to the Canada Shipping Act to promote or mandate the use of electronic chart systems.



OSL's ECPINS chart and radar data overlay presentation.

of operating conditions; provision of the basic background knowledge necessary prior to any appropriate regulatory action such as changes to the Canada Shipping Act to promote or mandate the use of electronic chart systems.

Helmut Lanziner, president of OSL, stated: "This Electronic Chart Pilot Project is the largest test bed program in the world and we are delighted that we won this important contract. As pioneers of the

modern electronic chart we look forward to demonstrate to the international marine industry the value of our ECPINS as a new aid to safe navigation and grounding avoidance."

To receive free literature about OSL's electronic chart products,

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PROPELLER SHAFT SEALS Acquisition Announced

July 1, 1992

Worldwide Edition

John Crane Marine International is pleased to announce that it has acquired the Marine Seals portion of the Waukesha Bearings Company. The new U.S. company will be known as John Crane Marine USA and will integrate the Waukesha seals operation into its headquarters by August 1, 1992.

The combined capabilities will provide greater advantages to both our naval and commercial marine customer base. JCM USA can offer shaft seal designs for water, grease, and oil lubricated systems for propulsion shaft, rudder stock, bulkhead, fin stabilizer and bow thruster applications. Sizes range from 2"-60" diameters with non-split, partially split and fully split designs.

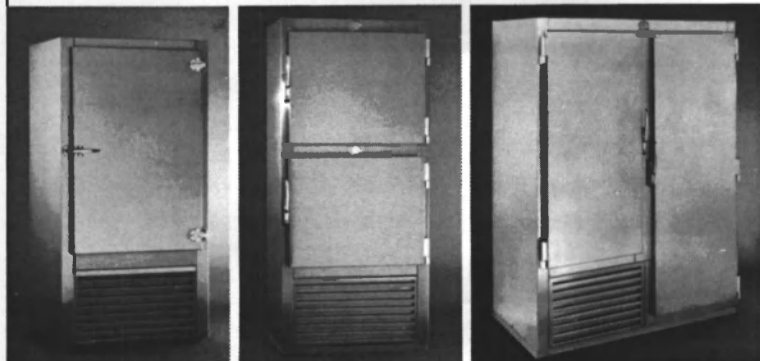
In addition, JCM USA can offer special non-pollution configurations to help meet the requirements outlined in the Oil Pollution Act of 1990. For additional information, please contact us at:



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White House Urged To Extend New Maritime Subsidy Program

It is reported that U.S. shipping lines are hoping that the **Bush** Administration expands the length of its proposed maritime subsidy program beyond its currently planned 7 years.

The Administration recently unveiled a comprehensive maritime policy that features a "contingency retainer program" designed to replace current operating subsidies (see July 1992 issue of *Maritime Reporter*, page 11, "New Maritime Policy Proposal - U.S. Owners Could Place \$5 Billion In New Ship Orders").

The government would provide U.S.-flag operators with \$2.5 million a year for each militarily useful ship signed-up with the program, up to a maximum of 74 vessels. The size of the retainer would drop to \$1.6 million a ship by the year 2001, the seventh and final year of the program.

In exchange for the subsidy, operators would agree to make all of their vessels in the program immediately available to the military during a national emergency.

It is reported that U.S. carriers would like to see the new program extended by at least an additional ten years.

Houston Ship Repair Wins \$8.2 Million MarAd Contract

The U.S. Maritime Administration (MarAd) recently awarded an \$8,177,027 firm fixed-price contract to Houston Ship Repair, Channelview, Texas, for the conversion of the tanker SS Petersburg into an Offshore Petroleum Discharge System (OPDS) ship.

Begun in 1984, the OPDS program is designed to deploy up to 4 miles of conduit from ship to shore and begin delivering petroleum products to military beach units within 48 hours. After discharging its own cargo, other tankers tie up to the OPDS ship moored offshore and transfer their cargoes over the beach through the OPDS pipeline.

The fourth vessel in the OPDS program, work on the Petersburg is expected to take 13 months. Upon redelivery the tanker will join MarAd's Ready Reserve Force for use in a national emergency.

Textron, IAI Team Will Manufacture And Market Dvora MK-II Patrol Boat

New Orleans-based Textron Marine Systems, a division of Textron, Inc., and Israel Aircraft Industries'

(IAI) Ramta, a facility of IAI's Technologies Division, have signed an agreement to manufacture and market Ramta's Super Dvora MK-II patrol boat. The team will compete in the U.S. Special Operations Command (USSOCOM) Mark-V program.

The Mark-V will be produced by USSOCOM and used by Navy Seals for fast insertion missions. The boat is required to be air transportable

and suitable for drug interdiction missions in river environments.

Congress has placed the Mark-V program on a "fast track" with full prototype testing scheduled for Fiscal Year 1993.

Under the teaming agreement, Ramta will provide a Super Dvora boat for the prototype testing phase of the Mark-V program and Textron will conduct the engineering and construction of the production boats.

Textron Marine Systems, a world leader in air cushion technology, is the principle builder of the Navy's Landing Craft Air Cushion (LCAC) and is also building 47-foot motor lifeboats for the U.S. Coast Guard.

For free literature about the MK-II patrol boat and the various services offered by Textron Marine Systems,

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U.S. SHIPYARDS

CURRENT CHALLENGES & VIABLE SOLUTIONS

By Robert F. O'Neill, Vice President
American Waterways Shipyards Conference*

The U.S. maritime industry—shipyards of all types and sizes included—has entered a truly unique period. Both Congress and the Executive Branch have turned their attention to problems afflicting the U.S. maritime industry. For the first time in recent memory Congress and the Executive Branch perceive the need to take action in order to save the U.S. maritime industry from further decline. This special opportunity will not last forever. Indeed, action must be taken soon or changing circumstances and national priorities will close the door for some time to come. Developments on Capitol Hill and in the Executive Branch indicate that some action on maritime policy may be forthcoming.

White House Policy On Maritime Reform

On June 22, 1992, Secretary of Transportation **Andrew Card** testified before the Senate Merchant Marine Subcommittee and presented a 16-point program for maritime reform. The recommendation were the product of a White House high level panel tasked by President **Bush** to develop a program that would revitalize the United States merchant fleet.

The White House was jolted into action by the announcement of Sea-Land, Inc., and American President Lines that they would register their ships under foreign flags if meaningful changes were not made in government policy affecting the merchant fleet. Among the 16 recommendations are several items that will affect shipyards. They include: reduction and repeal of the 50 percent ad valorem duty on non-essential repairs in foreign shipyards; establishment of a Contingency Retainer Program (CRP) comprised of 74 "militarily useful" commercial cargo vessels that would receive yearly payments for 7 years in exchange for being available to transport military cargo in times of national emergency, expansion of the Capital Construction Fund (CCF) to include the construction of inland cargo vessels, and a \$35 million, 7 year shipbuilding research and development program on shipbuilding.

There are elements of the package that have stirred controversy. According to the reform package, vessels built under the Contingency Container Program, the Capital Construction Fund and the Title XI loan guarantee promotion program could be built in foreign shipyards, provided the shipyards are not "excessively subsidized." Yet no definition of "excessively subsidized" has been set.

The package includes emphasis on ending foreign subsidies through the process established by Section



American Waterways Shipyards Conference members, such as MARCO-Seattle, provide a wide variety of construction and repair services to naval and commercial vessel operators.

301 of the Trade Act, the subsidy code of the General Agreement on Trade and Tariffs (GATT), bilateral trade agreements with shipbuilding nations. Overall, the members of the Committee expressed strong reservations about the impact of the proposed program on U.S. shipyards and skepticism about relying on Section 301 of the Trade Act, GATT or bilateral agreements as a means of addressing unfair foreign subsidies.

Many of the components of the administration's proposed package—including the reduction and repeal of the 50 percent duty on foreign ship repairs—must be considered and approved by Congress. Secretary Card announced at the July 9 hearing that a legislative proposal will be sent to Congress shortly after the Democratic convention in mid-July. Many observers predict that such legislation could move fast, even though—at this writing—there are very few legislative days left in the 102nd Congress, and the legislative schedule is already overcrowded.

The Gibbons Bill

The Shipbuilding Trade Reform Act of 1992 (H.R. 2056), introduced by Rep. **Sam Gibbons** (D-Fla.), is working its way through Congress. Passed by the House of Representatives on May 13, 1992, by the impressive margin of 339-78, H.R. 2056 prohibits any vessel built or repaired in a subsidized foreign shipyard from calling at U.S. ports unless the owner can certify that the vessel is subsidy-free as of the date of enactment or the amount of the subsidy was repaid. The bill also amends

antidumping and countervailing duty laws to authorize the imposition of duties on subsidized sales of commercial vessels. The Gibbons Bill would not affect ships built or repaired in countries that sign a shipbuilding trade agreement with the United States.

The legislation was inspired largely by the inability of multilateral negotiation to reach an agreement to phase out and end shipyard subsidies. The shipbuilding subsidy negotiations sponsored by the Organization for Economic Cooperation and Development (OECD) recently concluded without a final agreement. These negotiations were initiated by the United States in response to a petition for action filed by the Shipbuilders Council of America (SCA) under Section 301 of the trade act. The SCA petition cited unfair foreign government shipbuilding subsidies, as well as the loss of 120,000 shipbuilding jobs in the United States since the termination of Construction Differential Subsidy (CDS) program in 1981.

The Senate companion to H.R. 2056, the Shipbuilding and Repair Industry Free Trade Act (S. 1361), has been introduced by Senators Mikulski (D-Md.) and Lott (R-Miss.) It is pending before the Senate Finance Committee and a Committee vote has not yet been scheduled. The Senate has a well-deserved reputation for not passing "sector specific" legislation and the few remaining legislative days in the 102nd Congress are already full with item such as agency appropriations bills and possible health care legislation. If the supports of S. 1361 are successful in getting a Senate vote...

and that seems unlikely now... and can focus the debate on jobs and the need to sustain a shipbuilding industrial base, the bill has some chance of passing.

The Bush Administration has announced its intention to veto the Gibbons Bill or any similar legislation. Congressional override of a Presidential veto is possible in the House of Representatives but highly unlikely in the Senate.

Global Competition

Since the mid-1970s, a new world marketplace has emerged taking the place of the economic order dominated by the United States. Economic powers such as Japan, South Korea, Germany and Taiwan have challenged U.S. dominance of commerce in everything from basic steel to automobiles to ships. No longer can the U.S. producers be assured of continued, unchallenged prosperity. As the marketplace has become more global in scope and the portion of U.S. gross domestic product related to exports grows with each passing year, U.S. producers must respond to worldwide demand and competition from nations that design and manufacture products with shorter lead times and more efficient methods of production. The countries that will prosper in the 1990 and into the 21st century are those that will have a technically skilled workforce with the technical capability to implement technical advances that make production more efficient and cost effective.

U.S. shipyards have no choice but to compete in this new environment. It should be noted that while the fight goes on to eliminate foreign government subsidies of shipyards, the U.S. shipyard industry must turn its attention to bolstering its capability to build vessels of all sizes, utilizing new methods of design, management and production. Even if the United States were successful in persuading its foreign competitors to eliminate unfair subsidies, U.S. shipyards would still have to improve their production capabilities in order to survive. Already encouraging signs can be seen as a few U.S. second-tier shipyards are successfully competing in the world marketplace. These shipyards produce vessels that are competitive in cost and quality. More progress must be made in this area.

National Shipbuilding Research Program

The National Shipbuilding Research Program (NSRP) has been in continuous operation for more than two decades. It began in response to the legislation passed by Congress directing the government to create a program to reduce the cost of commercial construction. The NSRP was created as the organization

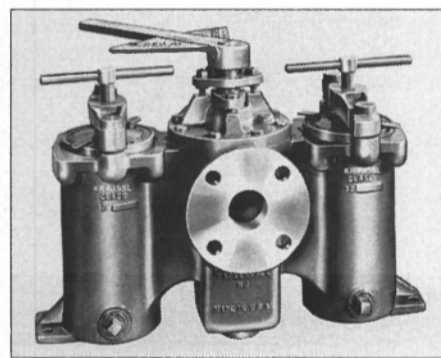
through which industry and government could work together to improve the productivity and competitiveness of the U.S. shipbuilding industry. NSRP is managed by the Navy's David Taylor Research Center (DTRC) and is funded through the Navy Manufacturing Technology (MT) program. It sponsors research projects in shipyards throughout the country in vital aspects of shipbuilding and repair, such as facilities, coatings, design, human resources management, welding, industrial engineering and training. The knowledge generated by NSRP sponsored projects is published and available through the NSRP Documentation Center at the University of Michigan, Ann Arbor, as well as a yearly symposium.

The goals of the NSRP are to develop new ways to reduce construction and repair time, reduce costs of design and construction, promote a commitment to quality, capture 3 percent of the international shipbuilding market, and assume the leadership role in advancing shipbuilding technology.

The NSRP is the type of investment that should be made in the U.S. shipbuilding and repair industry. The benefit of its activities far exceed its relatively small budget for fiscal year 1992 of \$3 million. Developing and implementing new innovation and technologies will help keep U.S. shipyards strong, efficient and competitive.

*Editor's Note: The American Waterways Shipyard Conference (AWSC) is the national trade association representing second-tier shipyards, which consist of small and medium-sized builders. AWSC is a conference of the American Waterways Operators (AWO), the national trade association of the inland and coastal tug and barge industry.

Kraissl Expands Duplex Strainer Line



The Kraissl Company, Hackensack, N.J., recently expanded its duplex strainer line with the addition of a cast aluminum model.

Manufacturing simplex and duplex pipeline strainers and filters in cast iron, stainless steel, bronze and other alloys for over 65 years, the New Jersey company offers its model 72 with rugged one-piece cast construction and model 73 series with Sea-View design, which includes transparent plastic sumps allowing for visual verification of fluid flow. Both models are often

used on seawater for protecting engine cooling systems, where very little space is available for complex piping. The tapered valve plug permits easy one stroke transfer of flow from one side to the other without flow interruption.

The company reports that reliability and long life in severe service conditions is inherent to these designs. The use of various aluminum alloys instead of bronze or stainless steel for both weight reduction and

economy has become very important in both military and commercial applications.

For additional information on Kraissl simplex and duplex pipeline strainers,

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Bulker Drydocked By Vancouver Shipyards

Vancouver Shipyards Co. Ltd.,

North Vancouver, B.C., Canada, has just completed the drydocking of the 47,540-dwt bulk carrier Prospector II, operated by Alcoa Steamship Co., Inc., Pittsburgh, Pa.

Additional dock bookings include Norsk Pacific's 18,567-dwt newsprint carrier Thorseggen and Dorchester Maritime's 15,000-dwt ammonia carrier Excel.

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AWO FALL CONVENTION

& Board Of Directors Meeting

September 8-10, In San Francisco

An issue-packed agenda greets the AWO Fall Convention and Board of Directors meeting from September 8 to 10, in San Francisco, Calif. The convention will be held at the Stanford Court Hotel on Nob Hill.

A number of extremely important issues, both internal and external, will be discussed during committee meetings and at the board of directors meeting—which is open to all members of the association. The board will hear an interim report of the Task Force on Mission, Structure and Finance, chaired by AWO vice chairman **Clint Odell** of Cargo Carriers, Inc. That Task Force, established on April 10, 1992, is examining the association from top to bottom, to either reaffirm its current structure, mission, and financing, or recommend appropriate changes that will position AWO for the future. In establishing the Task Force, AWO chairman of the board **Donald Duffy**, Foss Maritime Com-

pany, said the group “will take an exhaustive look at the association, what it should do, how it is organized to accomplish these objectives, the resources we have available, and finally, how we are directing it. When the Task Force reports back they

will present a blueprint for a strong AWO future, and one that will attract full support of the membership.” Chairman **Duffy** noted that the Task Force would seek the counsel and guidance of the association’s members. Accordingly, an exten-

sive survey of the entire membership was sent out by the Task Force, and its results will be reviewed at the San Francisco meeting.

The association will also review the proposed 1993 Business Plan and will delve into the association’s financing for the coming year, reviewing the status of the association’s 1993 Budget and Three-Year Plan.

There are a number of vital issues on the legislative front which currently challenge the association. AWO will discuss current legislation which would require a merchant mariners document for all inland river deckhands. The bill, which would eliminate the current exemption for seamen working on barges and vessels operating on rivers and lakes, passed the House Merchant Marine and Fisheries Committee on July 1. The association will also discuss the importance of an agreement between industry

AWO Fall Convention Schedule

Tuesday, September 8

- 1-2:30 p.m.—AWSC Legislative Committee
- 1-2:30 p.m.—AWSC Membership & Membership Service Committee
- 2:30-4 p.m.—AWSC Regulatory Committee
- 2:30-4 p.m.—AWSC Military & Government Committee
- 4-5 p.m.—AWSC Steering Committee

Wednesday, September 9

- 7-9 a.m.—HSAT Committee
- 8:30-11:30 a.m.—AWSC Membership Meeting
- 9-11 a.m.—AWO Regulatory Committee
- 11:30 a.m.-12:30 p.m.—Public Affairs Committee
- 2-4 p.m.—Legislative Committee
- 6:30-8:30 p.m.—AWO Reception aboard the M/V Royal Prince

Thursday, September 10

- 8 a.m.-noon—AWO Board of Directors Meeting

and the U.S. Army Corps of Engineers on the definition of "major rehabilitation." A source of controversy for years, the new definition will replace the earlier informal definition and will set parameters for more judicious use of scarce Inland Waterways Trust Fund dollars. Of major importance, AWO will also review the current status of the controversy over Certificates of Financial Responsibility (COFRs) since the likelihood of a Coast Guard ruling requiring COFRs looms more imminently.

In the regulatory arena, AWO will consider the President's ongoing regulatory initiative to review all existing regulations with the goal of eliminating those that hinder growth and speeding up those that stimulate economic activity. AWO has applauded President Bush's initiative to take a fresh look at federal regulations that unduly increase costs and which capriciously

strangle many sectors of the American economy.

On specific regulatory matters, AWO will review the Bush Administration's maritime reform proposal, will discuss recent rulemakings on natural resource damages from the National Oceanic and Atmospheric Administration, and will continue its work to bring common sense to the EPA's gasoline regulations concerning reformulated and oxygenated gasoline.

The American Waterways Shipyard Conference will hold committee meetings on Tuesday, September 8. AWO will hold committee meetings on Wednesday, September 9. The board of directors will meet on Thursday, September 10.

For further details, contact the American Waterways Operators, 1600 Wilson Boulevard, Arlington, Va. 22209; or telephone: (703) 841-9300.

Trinity Marine Group Promotes Three To Senior Vice-President

Three vice-presidents of the Trinity Marine Group, Gulfport, Miss., have been promoted to senior vice-president. They are: **Vincent R. Almerico, Jr.**, senior vice-president, operations; **Robert E. Kenny**,

senior vice-president, inland operations; and **Harvey B. Walpert**, senior vice-president, administration.

In making the announcement, **John Dane III**, president of Trinity Marine Group, said, "These pro-



Robert E. Kenny



Harvey B. Walpert

motions are an outgrowth of Trinity's continued business expansion in challenging business climate and is in recognition of the leadership and dedication of these men to make the Trinity Marine Group the leader in its field."

As senior V.P. of operations, Mr. **Almerico** will be responsible for all

facilities and program management of shipbuilding programs.

Mr. **Kenny**, senior V.P. of inland operations, is responsible for Trinity's barge building shipyards in Brownsville, Pa., and Madisonville, La., as well as sales to inland river customers.


Engineering, personnel, estimating, the legal department and corporate office services will all be the responsibility of Mr. **Walpert**, senior V.P. of administration.

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

Shipbuilding companies included in the group are: Halter Marine, Inc.; Moss Point Marine, Inc.; Equitable Shipyards, Inc.; Gretna Machine & Iron Works, Inc.; Aluminum Boats, Inc.; HBC Barge, Inc.; Trinity-Beaumont; and Trinity Marine-Gulfport, Inc.

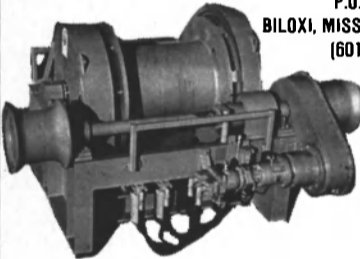



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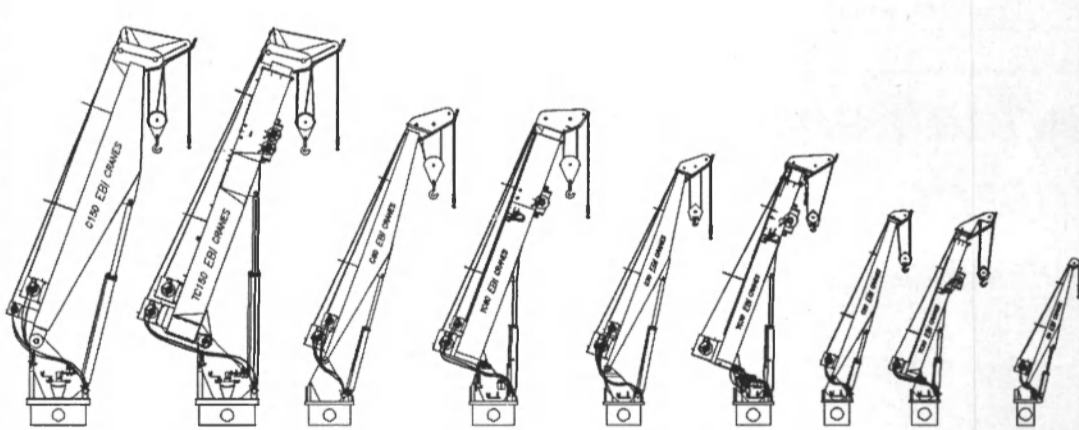
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New Designs Unveiled By Burger Yacht Following Restructuring

At one time the premiere builder of custom aluminum motoryachts, Burger Yachts Company is now unveiling a number of new designs and a new after-sales service following a major restructuring.

Burger was able to establish a Burger Sales and Service Company through an alliance with the Rybovich Spencer Group. The new alliance will provide Burger with a strong presence in the South Florida area. The well-equipped facilities at West Palm Beach will service the existing fleet with finishing and warranty work and serve as sales headquarters. Burger plans to reopen its Manitowoc, Wisc., facility, which

will serve as the company's main boat manufacturing site.

Burger plans to exhibit a new 90-foot motoryacht design at the Fort Lauderdale International Boat Show. Models of 70-, 80-, and 100-foot designs will also be shown.

For free literature fully detailing the Burger Yacht line of boats,

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Germany Controls Largest Boxship Fleet

Control of the world's biggest fleet of fully cellular containerships rests with united Germany, according to the latest issue of World Shipowning Groups.

Companies with ultimate management control in Germany are responsible for a fleet of 219 containerships totaling 292,460 Twenty-foot Equivalent Units (TEUs), says the new directory. This puts Germany comfortably ahead of Japan (144 vessels of 245,935 TEUs) and Taiwan (130 ships, 227,845 TEUs).

Taiwan's Evergreen Marine is the world's largest fully cellular boxship operator with 56 vessels (including five newbuildings) with an aggregate TEU capacity of 134,928.

Second in the world is Denmark's A P Moller with 45 vessels (including four newbuildings) totaling 113,402 TEU. Sea-Land Service of the U.S. is third with 45 vessels of 104,394 TEU. Germany's Hapag Lloyd is sixth in the world, followed by fast-growing South Korean line Hanjin and Japanese giant NYK.

New Earth Station Expands Comsat Coverage

Comsat Mobile Communications recently announced the start-up of its new Indian Ocean Region earth station in Anatolia, Turkey, which will expand the company's coverage to all four ocean regions.

The Anatolia station is providing service in the Indian Ocean Region—the fastest growing region for communication traffic in the Inmarsat system. The new facility joins Comsat's Southbury, Conn., and Santa Paula, Calif., stations in providing high-quality satellite services to all Inmarsat-A equipped ships and land mobile terminals. With the Anatolia station on-line, Comsat Mobile Communications is providing, for the first time in its 17-year history, global coverage in all ocean regions from its own facilities.

"Our new station in the IOR enables us to provide customers with truly global service—one-stop shopping for all their communications needs and they will now be able to add their IOR traffic to our various volume discount program for significant savings," said **Ronald J. Mario**, president of Comsat Mobile Communications.

For additional information on the services provided by Comsat Mobile Communications,

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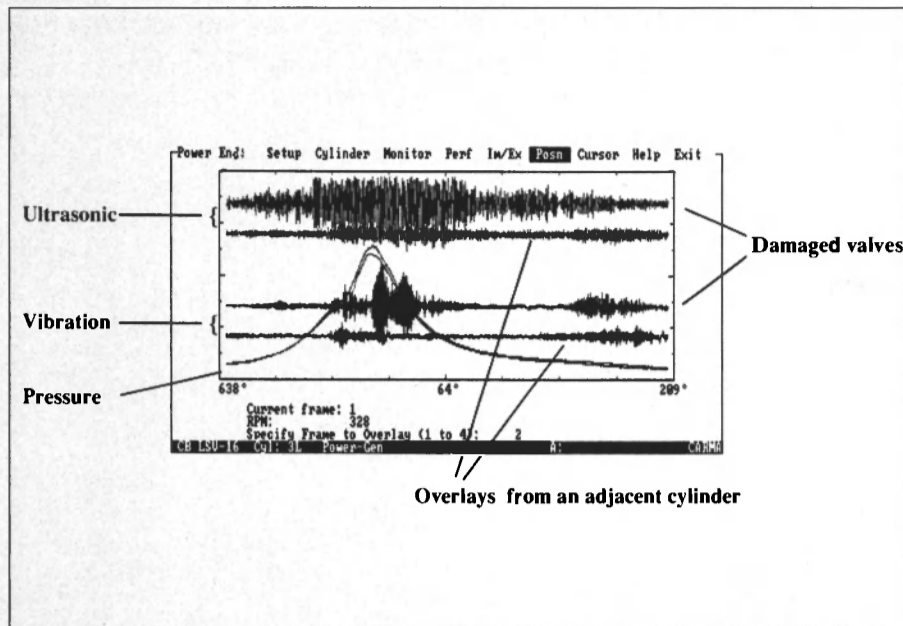


The President Riverboat Casino



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A printout of one cylinder data with an overlay from an adjacent cylinder. Such comparisons can isolate problems and permit balancing the engine. Detection of cracked heads, clogged or malfunctioning injectors, worn bearings and damaged valves is simple with the CARMA system.

Regular Engine Analysis Can Reduce Maintenance And Fuel Costs

Mesa, California-based MCA Engineers, Inc., and German & Milne, Vancouver, British Columbia, Canada, recently jointly conducted diesel engine diagnostic tests onboard containerships in Long Beach and Oakland Harbors. The diagnostic tests were con-

ducted using the Computer Assisted Machinery Analysis (CARMA) system. CARMA is a real-time analysis system that allows the operator to "see" inside the engine while it is operating, preferably between 60 and 80 percent of full load.

The four-stroke diesel engines

tested were the drivers of 2,500-kw generator sets, developing 3,500 bhp. The data taken at the correct crank angle, and accumulated for analysis included: cylinder pressures at peak and injection; indicated mean effective pressure (IMEP); and the indicated horsepower of each cylinder at the current rpm and generator load.

The vibration and ultrasonic amplitudes can be measured in relationship to the crank angle at various locations and can indicate worn valves, springs, piston rings, excessive clearance in cylinder liners, wrist pin bearings, main or bottom end bearings and faults with the fuel systems including pump and injectors.

According to MCA Engineers, Inc., the data is captured and displayed in real time on the monitor screen and stored for later review. Selected printouts can be made of the stored data on-site for a more detailed review. Using the data, engines can be precisely balanced.

Regular monitoring with engine analyzers allows one to predict failures and detect most faults that plague reciprocating machinery. A major Gulf Coast company reports that replacement of components showing abnormal performance has reduced maintenance costs by 40 percent and additionally fuel costs have been reduced by 20 percent.

For free literature detailing the CARMA system or other services of MCA Engineering,

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IMO Issues New Rules For Tanker Design And Oil Discharge Control

The Marine Environment Protection Committee (MEPC) of the International Maritime Organization (IMO) has adopted requirements for the design of new oil tankers and revised arrangements for existing vessels in MARPOL Regulations 13F and 13G respectively. The new regulations will become effective on July 6, 1993.

Reflecting the opinion of the International Association of Independent Tanker Owners (Intertanko) that owners should be able to choose from several designs which offer an equivalent level of environmental protection, Regulation 13F (new tankers) provides for either double-hull or mid-deck designs. For existing ships, Regulation 13G states that these vessels should be subject to a stricter regime of surveys and inspections.

The MEPC session also modified MARPOL provision Annex 1, Regulation 9 governing permissible rates of oily discharge from tankers. The instantaneous rate of oil content in discharge must now be no more than 30 liters per nautical mile.

An additional clause states that vessels delivered by July 6, 1993 must have oily water separating equipment for 15 ppm oil content.

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Gunderson Reactivates Barge Building Facility; Sherwood Named VP/GM

In anticipation of an upswing in demand for double-hulled ships and barges mandated by the Oil Pollution Act of 1990, as well as conventional oceangoing and inland vessels ranging up to 40,000 dwt capacity, railcar manufacturer Gunderson, Inc., plans to reenter the vessel construction business after a seven-year absence.



Thomas A. Sherwood

Gunderson Marine, the company's marine equipment and barge building operation, will be reactivated at Gunderson's facility in northwest Portland, Ore. The division will be headed by **Thomas A. Sherwood**, who was recently appointed vice president and general manager of Gunderson Marine. Mr. Sherwood formerly served as

vice president and chief operating officer of the Zidell Marine Group, Portland, which has engaged in barge building since the 1960s.

Gunderson's marine operation in Portland has produced nearly 2,000 vessels ranging from harbor tugs for the U.S. Navy to 580-foot triple-decked RO/RO barges and 650-foot 40,000-dwt double-hulled gas turbine-electric tankers.

The firm's facility is located on a 75-acre site alongside the Willamette River in Portland. The yard features reportedly the largest side launch ways on the Pacific Coast at 700 feet, more than 17 acres of fabrication and assembly buildings, and a 1,100-foot outfitting dock served by two cranes.

For free literature detailing the capabilities of Gunderson Marine.,

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U.S. Navy's Newest Attack Sub 'Boise' Completes Sea Trials

The nation's newest and most advanced nuclear attack submarine, the Boise (SSN-764), returned to Newport News Shipbuilding, Newport News, Va., following the recent successful completion of initial sea trials.

The sea trials were conducted by Adm. **Bruce DeMars**, U.S. Navy, Director of U.S. Navy Nuclear Propulsion. The Boise is commanded by Comdr. **David Mericle**.

Also taking part in the sea trial were **W.R. (Pat) Phillips Jr.**, Newport News Shipbuilding president and chief executive officer; **William Fricks**, Newport News Shipbuilding executive vice president; and Capt. **Fred Lutz**, U.S. Navy, Supervisor of Shipbuilding, Conversion and Repair, Newport News.

Newport News Shipbuilding has under construction seven additional L.A. Class attack subs and two Nimitz Class aircraft carriers. The shipyard is also the lead ship design yard for the Seawolf Class, the Navy's newest generation attack submarine.

O&K Offers Free Color Brochures On Deck Crane Lines

O&K Orenstein & Koppel is offering free color brochures on its complete line of deck cranes, including its standard, slim, low profile, gantry and double-joint models.

One of the models detailed is the FK double deck crane on one slewing arm. First developed in 1972, the FK double-deck crane from O&K Orenstein & Koppel has been installed on container carriers, multi-purpose vessels and reefers which are in operation worldwide. In all, more than 150 double cranes of this type have been installed.

Some of the essential advantages of the FK type double deck crane on one slewing rim as compared with



The FK type one slewing arm double deck crane from O&K is available in hoisting capacities up to 40 tons.

other models include: a lower center of gravity and lower weight for better ship stability; lower height and more compact design for better bridge visibility; less parts and maintenance; the same slewing speed in single or twin operation; and quick switching from single to twin operation.

For a copy of a free color brochure from O&K detailing the FK model deck crane or other marine cranes available from the company,

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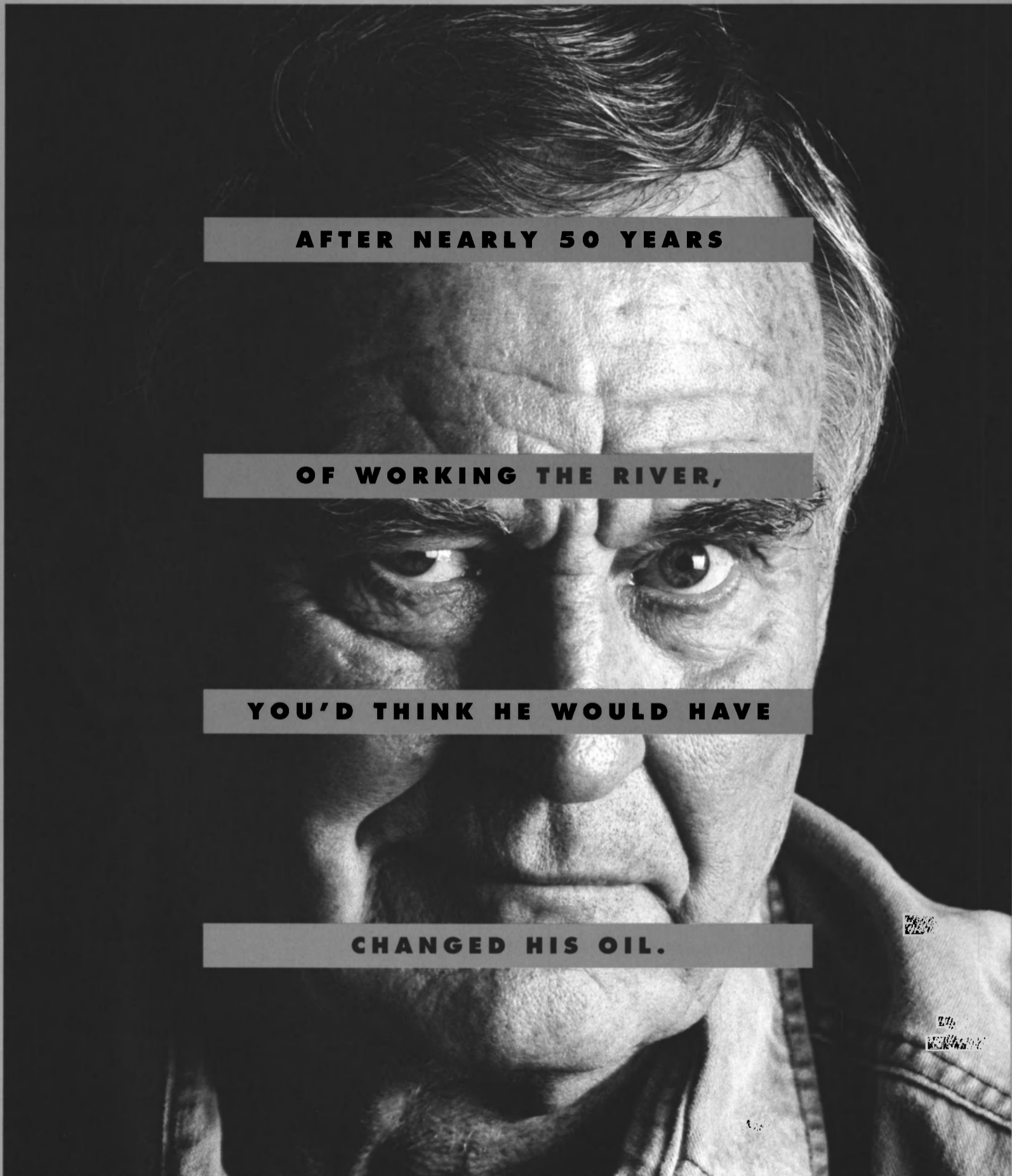
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CAPRINUS source by calling 1-800-231-6950.

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ABB Receives \$5 Million Ingalls Contract For Twin Boiler Installation

ABB Combustion Engineering Systems, Windsor, Conn., recently received a \$5 million contract from Pascagoula, Miss.-based Ingalls Shipbuilding, a division of Litton, for two marine boilers to be installed

aboard the multipurpose amphibious assault ship U.S.S. Bataan (LHD 5).

The company will provide two V2M tangent tube, field erected, main propulsion boilers for LHD 5, the fifth ship in the Navy's Wasp class. ABB also furnished the boilers for the previous four ships built by Ingalls in the LHD program. The contract also includes ancillary equipment and field engineering ser-

vices during assembly, testing and sea trials.

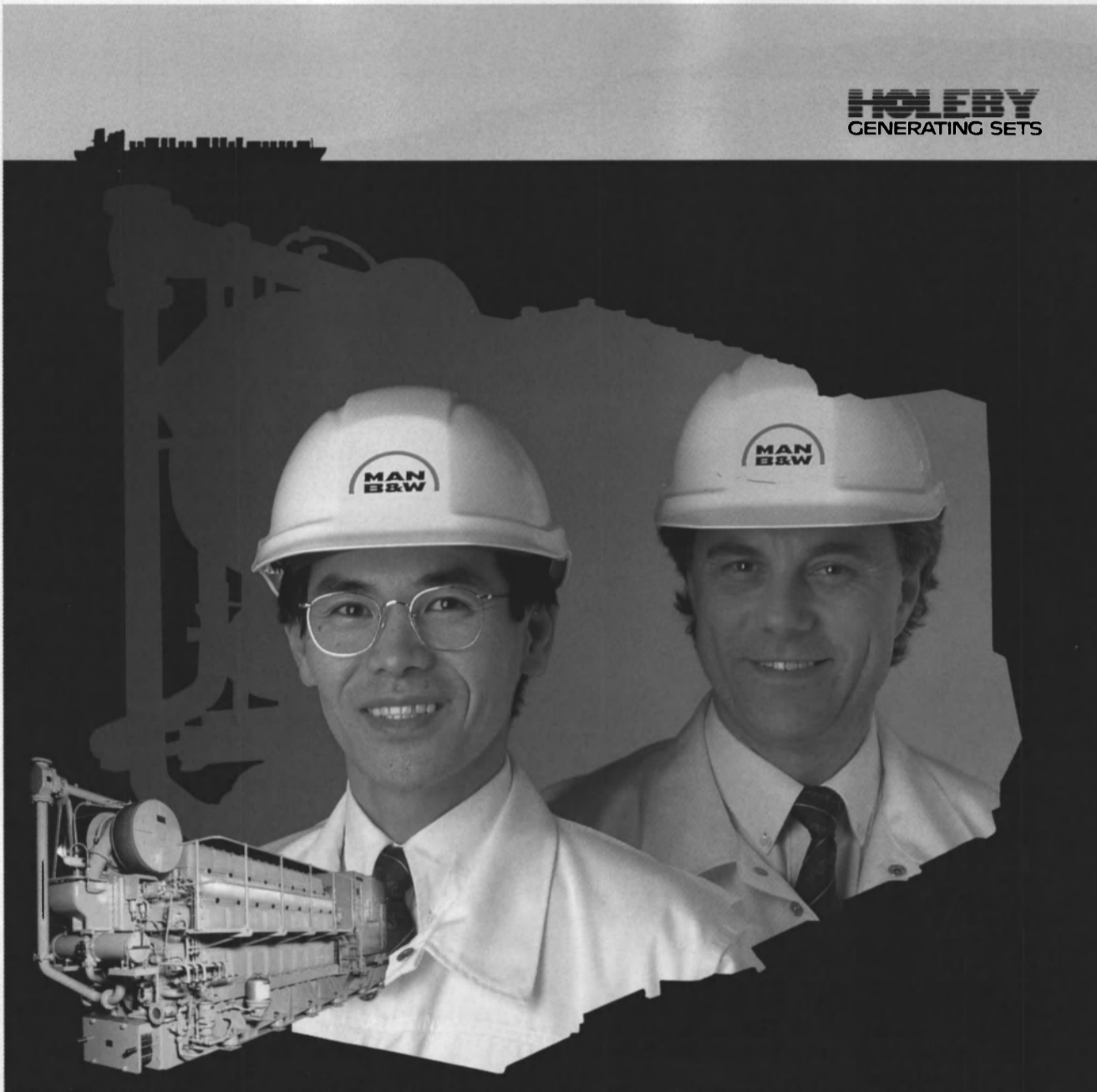
Boiler fabrication will be completed in the company's Chattanooga, Tenn., manufacturing facility. The boilers are scheduled for delivery to Ingalls during March 1993.

ABB Combustion Engineering Systems is a unit of Asea Brown Boveri, Inc., which provides products and services for the marine,

power, process, industrial automation, environmental control, mass transit and other markets. The company and its subsidiaries have sales of approximately \$5.5 billion and some 29,000 employees in the U.S.

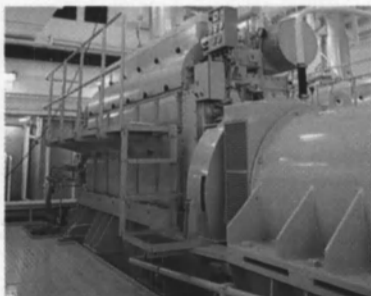
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The world-renowned Heavy Fuel GenSets from MAN B&W Diesel, Holeby are now available produced in Japan.

Niigata Engineering Co., one of the largest manufacturers of four-stroke engines in Japan, has entered into a manufacturing agreement with MAN B&W Diesel, Holeby, for the production, assembling and testing of the 23 and 28 Series, with an output range from 500 - 4,000 kW.

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IMC Expands Its Oil And Audit Services

International Marine Consultants (IMC), Inc., Mineola, N.Y., part of the IMC Group, a leading ship management, operations and technical service organization, has expanded its Oil Spill Prevention and Audit Services.

The new services will be offered from all of IMC's domestic locations, including its Gulf and West Coast regional offices and numerous field offices located along the coastal U.S.

Company vice president **John O'Conner** noted that the turning point for the deluge of oil spill legislation came with the Oil Pollution Act of 1990.

As a single-source provider of marine surveying, engineering and technical services, IMC has been serving vessel owners, charterers, oil companies and traders for over a decade. Some of the company's programs are insurance underwriter approved, thereby granting significant premium reductions for clients.

To receive free information about the services available from International Marine Consultants,

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Seacor Wins \$3 Million Navy Technical Contract

Mt. Laurel, N.J.-based Seacor has been awarded a \$3 million contract for engineering and technical services to support the overhaul and modernization of training equipment at Navy training activities throughout the U.S. through 1997.

Seacor has provided the support to the Naval Sea Logistics Center Detachment (NAVSEALOGCEN DET), Philadelphia, for over 14 years.

The program involves life-cycle support for combat systems and hull, mechanical and electrical technical training equipment. Seacor support to the Navy will include: on-site equipment inspections; developing maintenance plans; repair specifications; overhaul/modernization estimates and installation data packages; and provide configuration management support.

For additional information about the services available from Seacor,

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Maritime Reporter/Engineering News

RIVERBOAT GAMING REVIEW



a special supplement to

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AUGUST 1992

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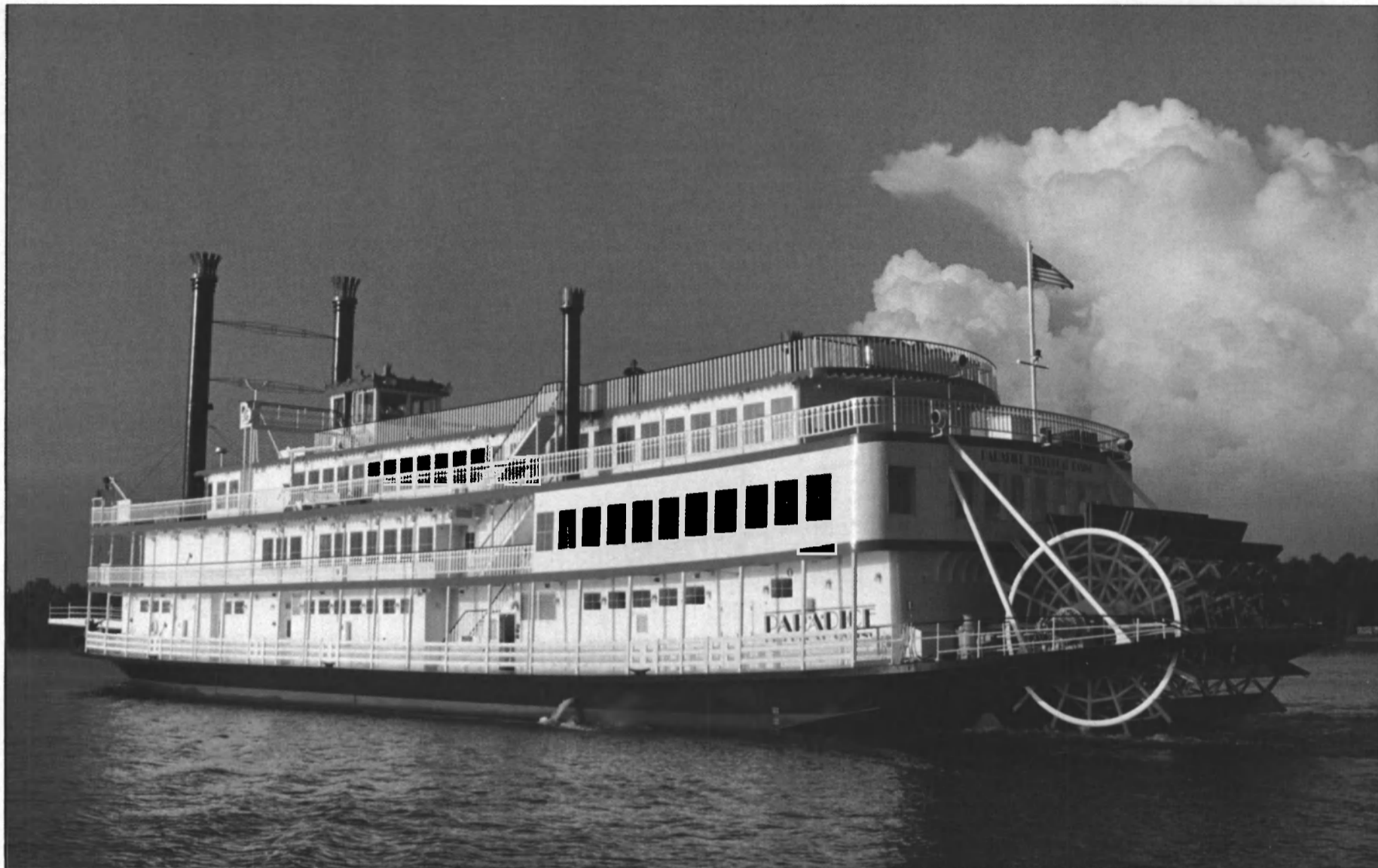
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RIVERBOAT GAMING

States' Need For New Tax Revenue Source Creates A Lucrative Marine Market

By Art Hahn, President
Waterfront Development Corporation*

John O'Conner, a 19th century veteran of the golden age of draw poker, once said, "Gambling is, was and probably always will be the chief amusement on the river." If the recent growth spurt in the riverboat casino market is any indication of the future of the industry, then Mr. O'Conner may well be right.

In fact, the entire passenger vessel segment of the industry is continuing to grow at a healthy pace. This segment is not dependent on a renewable resource such as fishing, oil, coal or grain, but dependent on the leisure industry, which is expanding in the tourism market. This segment's growth can also be attributed to the American public. They have rediscovered the country's waterways.

The inland waterborne casino market has, in just a few short years, accumulated an interesting history. Its beginning, or perhaps actually, rebirth, might be traced to an encounter between **Bernie Goldstein**

and a Clinton, Iowa, resident. At the resident's suggestion, Mr. **Goldstein** examined the possibility of utilizing his newly acquired mile-long riverfront site, the old J.I. Case plant in Bettendorf, Iowa, in an effort to recreate the "Mark Twain Riverboat" era. This Clinton resident suggested that maybe even gambling on the riverboats would be successful. That idea began a year and a half long, \$1 million lobbying effort which resulted in the Iowa passage of riverboat gambling in 1989.

In January 1990, Illinois passed riverboat gambling. The Illinois side of the Quad Cities area wanted their communities to share in this new tourism-oriented, revenue-generating idea. But, unlike Iowa's low stakes gaming, Illinois rules allowed unlimited stakes gambling.

Early in the summer of 1990, Mississippi passed their legislation. By this time, Iowa's direction and projected numbers (revenues and

profits) were starting to unfold. Illinois offered even greater potential. Mississippi had had an effort to create dockside gambling on the Gulf Coast because the "voyage-to-nowhere" concept was in jeopardy of being shutdown. A small group along the river in Mississippi wanted to have something similar to operations in Iowa and Illinois. They wrote their version of the legislation and attached it to the coast's version. These versions were eventually merged and retained in the law as it currently stands.

Missouri passes: **John Connelly** of The Connelly Group has a great presence on the riverfront in St. Louis and Pittsburgh. His efforts, along with other riverboat operators, and the Goldstein operation, helped push for a quick passage of legislation. The bill's final hurdle is a statewide referendum on riverboat gambling to be held in November 1992.

Louisiana passes: The major pas-

senger vessel operators in Louisiana lobbied strongly with former Governor **Buddy Roemer** and the legislature to pass a bill similar to the Illinois law. The fate of this bill is now in the hands of the newly elected Governor **Edwards**.

The newest wrinkle to waterborne casinos is the land-based casinos under discussion in Chicago and New Orleans. These venues will undoubtedly take longer to get going, but in general, will definitely influence waterborne operations.

Native American Gaming Operations

The waterborne casino effort and the Indian gaming effort are thriving on each other. The states' need for new tax revenue sources has encouraged the passage of riverboat gaming legislation. Once a state introduces casino type gambling, the Native American tribes can negotiate to offer gambling to the public on their reservations. Although Indian

gambling establishments pay no taxes to the state, their lucrative operations encourage and accelerate expansion of the tax-paying operations, waterborne and otherwise.

Latest riverboat gambling legislation efforts have been in states like Maryland, Pennsylvania, Indiana, Wisconsin, New York, Minnesota and Texas. This will continue at a very rapid pace.

Major Players

The most powerful players in the riverboat gaming market currently include **Bernie Goldstein**, **John Connelly** and **Bob Kehl**. They were pioneers in the industry, have been through the lobbying effort, are licensed, understand the economics of the industry, and have the cash flow. However, the "New Wave" of operators to watch are the

experienced gaming/hotel operators: Harrahs (Promus), Hilton, Lady Luck, Players International, Fitzgeralds, John Q. Hamons, Grand Casino Corp., Pratt/Sands, Horseshoe/Binions, Barbary Coast, GMT Management and others. These experienced hotel/casino operators, who have operated in the competitive environments of Las Vegas, Atlantic City and Reno, will pose

new challenges and create new opportunities in riverboat gaming.

Market Speculators

In the late 70s and early 80s, shipyards were the group speculating on the demand for vessels in the oil industry. Now, however, in the dinner/gambling boat industry, the people speculating on the demand are operators. Mr. **Goldstein**, the owner of Steamboat Casino River Cruises (and Alter Barge Lines), Mr. **Connelly** of The Connelly Group (and Gateway Clipper Fleet), **Terry McRae**, with Hornblower Yachts, and most recently, Mr. **Kehl** with the Dubuque Casino Belle (and Roberts River Rides), all have built vessels and have sold them or are currently offering one for sale. This tells something about how strong the dinner boat market was, or how strong the gambling boat market is. The new vessels do not appear to be going for any discounts either.

Strong Rivalry

Interesting rivalries have developed between various operators. It appears that when one camp makes a move, the other counters it. Some major operators have been attracted by the advantages of Mississippi's new dockside gaming. Since the floating casino can be on a permanently moored barge or vessel, it has fewer obvious concerns than a moving vessel and still offers the flexibility of relocation if things do not work out.

Market Potential

Market segment growth potential over the next two to five years could include 20 to 30 vessels. Many operators are cash rich. They have large cash reserves in their existing operations, or large equities in their facilities that can be easily leveraged, and they are looking for new arenas to expand into. Some have attracted new partners. In general, this is a lucrative cash business, with tremendous cash flow and high annual rates of return (50 to 60 percent).

The cost of these vessels can range between \$5 million to \$30 million. Anyone venturing into this business should have from \$2 million to \$10 million liquid cash available for each location; this is not a business for the faint of heart or the weak of pocketbook.

Boats will be going into obscure land-locked areas—wherever there are navigable bodies of water. One operation currently being considered will go on a 20-mile stretch of river that has a 15-foot bridge to the north and an 8-foot bridge to the south and an average river depth of 10 feet. These remote sites will continue to attract investors. Shipyards will have to find way of modularizing vessels and then shipping them to remote sites on the banks of rivers or land-locked lakes. The engineering package will have to be well thought out and include provisions for on-site assembly and completion.

A number of shipyards are presently involved in the construction of gambling vessels: Leevac, Service Marine, Atlantic Marine, Bender,

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Patti, Nichols Brothers, Houma Fabricators, and Superior Boat Works. A number of others are advertising to build new gaming vessels. They include: McDermott, Trinity Marine, Sea Fab, Marine Builders, Avondale, Southern Shipbuilding, and Freeport Shipbuilding.

Support Facilities

Another important area to be considered are the facilities to support the gaming vessels. Many operators are opting to leave the ticketing, waiting areas, gift shops, restaurants, business offices and storage areas on a barge moored beside the vessel.

The "Good Old Dinner Boat Market," in general, continues to thrive. One operator, for example, whose location lies between two gaming operations reports no change in his passenger count. Companies such as Odyssey, Spirit Cruises, Hornblower, and Boston Harbor Cruises continue to build dinner cruise vessels.

Vessel Design

A most important area is gambling vessel design. It is much more difficult than a plain passenger vessel project because of the space considerations involved for such areas as hard count rooms, slot club rooms,

Major Riverboat Casinos (In Operation, Under Construction, On Order)

Vessel	Capacity	Operator	Homeport
Alton Belle Casino	600	Alton Riverboat Gambling	Alton, IL
Casino Rock Island	1000	Jumer Hotels Ltd.	Rock Island, IL
City of Lights I	600	Pratt Industries	Aurora, IL
City of Lights II	600	Pratt Industries	Aurora, IL
Diamond Lady	1200	Steamboat Development Corp.	Davenport, IA
Dubuque Casino Belle	2200	Roberts River Rides	Dubuque, IA
Emerald Lady	1200	Steamboat Development Corp.	Davenport, IA
Empress Riverboat Casino	900	Des Plaines River Entertainment Corp.	Joliet, IL
Galena Eagle	1000	Eagle Rock Resort	Galena, IL
Lady Luck of Natchez		Lady Luck Hotel & Casino	Natchez, MS
Mississippi Belle II	500	Roberts River Rides	Clinton, IA
Mississippi Grand Casino	3000	Miss. Grand Resort & Casino	Tunica, MS
Palace Station	2500	Palace Station Hotel-Casino	St. Charles, MO
Par-A-Dice	1068	Greater Peoria Riverboat Corp.	Peoria, IL
Players Riverboat Casino	1200	S. Ill. Riverboat Casino	Metropolis, IL
President Casino Mississippi	1500	Connelly Group	Biloxi, MS
President Riverboat Casino	3000	Gateway Riverboat Cruises	Davenport, IA
Spirit of America	1500	Not available	Gulfport, MS
Unnamed	2000	Roberts River Rides	Undecided
Harrah's Casino Cruises	1200	Des Plaines Development	Joliet, IL
Grand Casino Gulfport		Grand Casino Inc.	Biloxi, MS

and EDT/security rooms. The critical components on the vessel are no longer the engines and the gears, but rather the air-conditioning plant, sewage system, massive electrical generating systems, and casino electronics.

"Casino first, boat second," is the attitude taken by most operators.

Windows and itinerary have become secondary, in fact, because operators want customers playing, not looking at scenery. Additionally, weight onboard gaming vessels is a critical factor—the weight of money, coins, slot machines and coin counters. Some casino vessels carry in excess of 40 tons of coins. Not

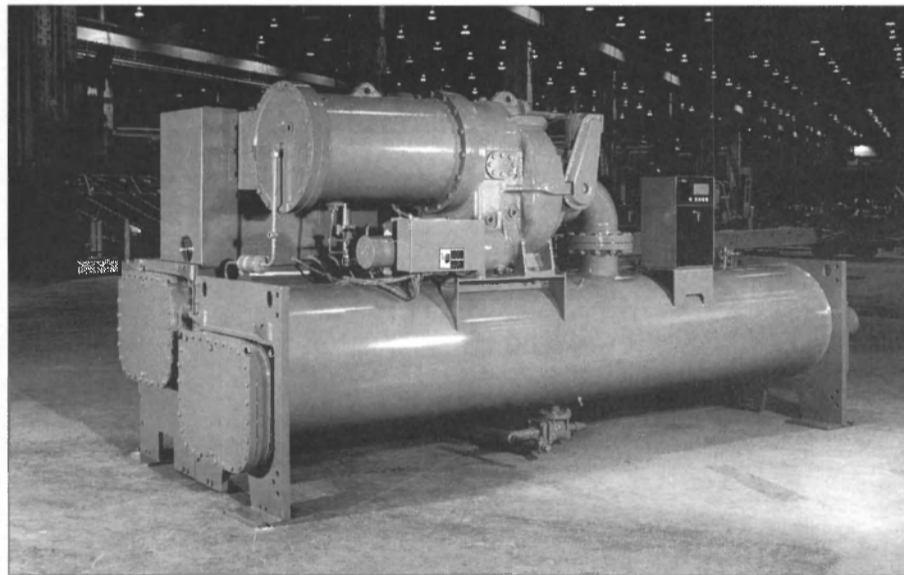
since the Spanish Galleons have boats carried this many coins.

The overall size of these vessels has also posed a great deal of problems for the U.S. Coast Guard. The possibility of locating six 3,000-passenger vessels in busy New Orleans Harbor calls for a tremendous amount of very skillful planning.

As time goes on MARITIME REPORTER will keep you abreast of new developments in this fast-changing industry market segment.

**Editor's Note: For three years, the Waterfront Development Corporation (WDC) has been a management consultant to the passenger vessel segment of the marine industry. During those three years, WDC has been associated with eight gaming vessel operations and four dinner/excursion boat operations. WDC provides services to develop business plans, seek financial sources for vessel acquisition or construction, and oversee vessel design and startup operations. Mr. Hahn was with one of the major U.S. shipyards for a number of years and has an engineering background. He is also a licensed gaming executive in Iowa. WDC is located at 256 College Lane, Mobile, Ala. 36608; or telephone: (205) 343-4327.*

Casino, Cruise Vessel Orders For New Generation Chillers From Carrier Transicold



Carrier Transicold's 90CM marine centrifugal chillers are designed to meet the specific requirements for shipboard duty, as well as today's environmental concerns.

Carrier Transicold Marine, a division of Carrier Corporation, has recently been awarded a contract for eight 90CM series Centrifugal Liquid Chillers. Four chillers were ordered for the cruise vessel Marco Polo in Greece, and four chillers were ordered for the Grand Casino to be delivered in Gulfport, Miss., later this year.

Carrier Transicold's 90CM marine centrifugal chillers are designed

to meet the specific requirements for shipboard duty, as well as today's environmental concerns. The 90CM chillers are efficient, compact, modular in design, use environmentally acceptable HCFC-22 and are convertible for use with ozone friendly R-134a.

The new 90CM marine chiller provides high efficiency operation thereby lowering energy costs and ensuring the minimum amount of

global warming due to indirect effects. High efficiency is obtained by high-speed turbine technology originally developed by Carrier's parent company, United Technologies, for use in jet engines. The use of a new aerodynamic tunnel diffuser, developed in conjunction with United Technologies Research Center, ensures optimum efficiency under all operating conditions.

Carrier reports emphasis on compact design has realized a 35 percent reduction in size in comparison to low-pressure chillers of comparable capacity. Flanged modular construction allows chiller disassembly and introduction through the hull via an opening equivalent to that of a standard machine room door. This makes the 90CM ideal for retrofit applications: the largest component is only 3.25 feet by 5 feet.

Other recent marine chiller orders awarded to Carrier Transicold include: the Player's International gaming boat, designed by Rodney E. Lay & Associates, and built by Leevac Shipyards; John Connelly's newest gaming vessel, the President Mississippi Casino, designed by DeJong & Lebet, also being built by Leevac Shipyards; Pratt Industries' City of Lights I and II, designed by DeJong & Lebet, and built by Garbe Iron Works; and the Harrah's Casino Cruises, designed by DeJong & Lebet, and built by Service Marine Industries, Inc. Costa Cruise Lines and Avlis Shipyards have also recently installed the Carrier Transicold chiller packages.

For additional information detailing Carrier Transicold's line of marine chillers for air conditioning or ship stores refrigeration plants,

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Offshore Systems Appoints Manfred Reimann as VP, Marketing and Sales

Manfred Reimann was recently named vice president of marketing and sales with Offshore Systems, Ltd. (OSL) of Vancouver, Canada, according to the company president Helmut Lanzinger.



Manfred Reimann

Mr. Reimann will be working out of OSL's new U.S. office in the Seattle area and will be responsible for all marketing and sales.

With an engineering degree in marine electronics, he brings over 25 years of marketing and management experience to OSL.

At Radio Holland Group-U.S.A., he was in charge of all U.S. marketing and sales efforts.

Mr. Reimann was also the U.S. manager of Honeywell ELAC and general manager of Krupp Atlas Elektronik Division.

OSL's Electronic Chart/Precise Integrated Navigation Systems (ECPINS) links the electronic chart with radar data (see, "Offshore Systems Wins \$1.3 Million Contract For Electronic Chart Systems," in this issue).

Boats & Barges



The Empress Riverboat, built by Atlantic Marine.

The Empress: Looks Like A Megayacht, Feels Like A Las Vegas Casino

When the Empress River Casino recently opened outside of Chicago, her design—both inside and out—turned heads. Unlike many of their counterparts in the growing world of riverboat casinos who have built or refurbished turn-of-the-century paddlewheelers, the Empress's owners opted for a contemporary yacht look.

The 66-foot-wide vessel was designed by Rodney E. Lay & Associates of Jacksonville, Fla., and built

by Atlantic Marine Corporation, also of Jacksonville. The pair teamed up to give a "megayacht" look to the vessel's exterior, including a bow that makes the boat look like a catamaran, although she is a monohull configuration.

But more than that, the Empress was designed to keep people at the gaming tables and slot machines. While some casino boat operators have tried to—or are required to—strike a balance between the gam-

ing and entertainment aspects of their vessels, the focus of the Empress is clearly on gambling. A total of 6 three-hour cruises are offered daily from 9 a.m. until midnight. There is not even a full service restaurant onboard, and both the first and second decks are devoted entirely to gaming. Those two floors have very few windows, so only the open-air top deck is used for sightseeing.

In fact, it was the job of St. Louis-based interior design firm Directions in Design to create for the boat's owners the feel of a Las Vegas casino, not a riverboat. The firm's signature can be seen in the boat's custom-designed carpeting, crackled glass chandeliers, and the design and detailing of basically every element of the boat's interior, including the gaming ma-

chines and tables, counters, bars and restrooms. Because there are very few windows, Directions in Design made use of a mixed metal theme in the interior design, utilizing bronze, gold and silver to create light refractions and glitter.

"We used a variety of interesting textures, reflective surfaces, jewel-tone fabrics and an unusual combination of precious metal colorations to give the casino a contemporary, slightly Egyptian look and feel," said Jane Ganz, president of the 17-year-old firm.

The Empress is a \$27 million, 222-foot, 1,000-passenger gaming vessel on the Des Plaines River near Joliet, Ill. The casino offers gaming with no state-regulated betting limits and has 28 blackjack tables, five craps tables, mini baccarat, three roulette wheels, a big six wheel, two video poker bars

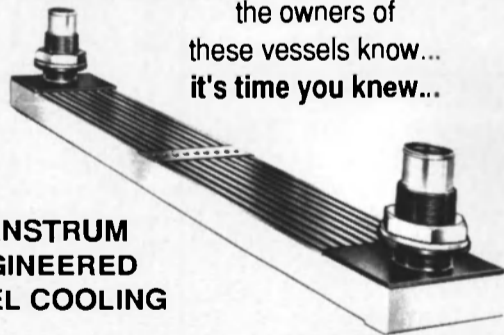


St. Louis-based Directions-in-Design gave the Vessel a "Las Vegas" atmosphere.



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and 607 slot machines.

The Empress is powered by two Caterpillar 3412TA marine engines, rated at 671 hp each, which turn ZF BW251 reduction gears with a 4.13:1 ratio. Caterpillar also supplied two 3508 model, 715-kw generator sets to provide shipboard electrical service; a 3304 NA, 113-kw generator set to provide emergency power; and a 3208 TA engine to power the Schottel SST170 48-inch bow thruster, which is rated at 400 hp. Electronic equipment includes a Furuno 1730 radar and a Datamarine Dart-4 2490 depth sounder. The VHF radios are a Si-Tex 880 and an Icom M120.

The Empress River Casino Corporation received preliminary license approval in July 1991 and its operating license last month. The corporation is comprised of businessmen from Will and DuPage Counties in Illinois, and is run by Nevada casino professionals who also own and manage Fitzgerald's casino hotels in Las Vegas and Reno.

For free literature detailing the boatbuilding capabilities of Atlantic Marine,

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Marine Accommodations Wins Joiner Contracts For Passenger Vessels

Jacksonville, Fla.-based Marine Accommodations, Inc., was recently awarded three separate contracts to provide joiner packages on three passenger-auto ferries.

Under a substantial contract, Marine Accommodations, Inc. engineered, supplied and supervised the installation of approximately 57,000 square feet of the BIP Panel System for the Northumberland ferry in Pictou, Nova Scotia. The package consisted of partitions, linings, ceilings, floating floors, wet room panels and accessories. The BIP Panel System is a Rockwool Core System and carries worldwide certificates from SOLAS, and the U.S. and Canadian Coast Guards.

As a direct result of the successful delivery on the first vessel, Marine Accommodations, Inc., was awarded a second contract for the engineering and supply of all the BIP/Cosmo Marine Joiner doors including hardware and accessories on the State of Maine auto-passenger ferry at Washburn & Doughty Shipyard in East Boothbay, Maine.

Furthermore, under a third contract, Marine Accommodations, Inc., provided a similar marine joiner door package to a Costa Rican auto-passenger ferry built by Atlantic Marine, Inc.

For free literature detailing the BIP joiner package from Marine Accommodations, Inc.,

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Charleston Paddlewheel Sidewheeler Launched By Freeport Shipbuilding

Freeport Shipbuilding & Marine Repair, Inc., Freeport, Fla., has launched the Barefoot Princess, a 150-passenger vessel, built for Charleston Paddlewheel Company, Inc., Myrtle Beach, S.C.

A sidewheeler replica, the Barefoot Princess is 65 feet in length with a beam of over 26 feet. She draws 3-1/2 feet. Financed by Caterpillar Financial, she is powered by twin Caterpillar 3208 main diesel engines and a 40-kw generator.

Barefoot Princess will operate as a sightseeing and dinner/cocktail cruise vessel from Barefoot Landing on the Intracoastal Waterway in North Myrtle Beach, S.C.

Barefoot Princess is the second boat Charleston Paddlewheel Company, Inc., has commissioned from Freeport Shipbuilding & Marine Repair, Inc. The first, the Southern Star, a true paddlewheeler, has been in service since June 1988 in Myrtle Beach.

Since 1981, Freeport Shipbuilding has been designing and building U.S. Coast Guard-approved passenger vessels, as well as custom luxury yachts and houseboats.

For free literature detailing the vessel construction capabilities of Freeport Shipbuilding,

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New Cashless System In Effect On Board RCCL's Cruise Ships

Miami-based Royal Caribbean

Cruise Line (RCCL) recently completed its switch to a cashless system on board all of its nine-vessel cruise ship fleet.

Called SuperCharge, the system allows passengers to sign for onboard purchases ranging from massages to casino chips.

The last morning of the cruise, a statement of charges is delivered to each SuperCharge user for verification and payment settlement.

Traditional Design



The Emerald Lady...

Designed by John W. Gilbert & Associates and patterned after the most successful sternwheelers of the late 1800's, the "Hudson" and the "Queen City," "The Emerald Lady," twin sister of the "The Diamond Lady," offers the grandeur of the original 19th Century Steamboats with rich Victorian interiors on four decks of casinos, gift shops, passenger lounge, main dining room and upper dining areas and children's arcade. Larger sister vessel "Par-A-Dice" operates from Peoria, Illinois.

For over 25 years, John W. Gilbert & Associates has been known for excellence and innovation in design of all types of riverboats and coastal vessels.

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Circle 213 on Reader Service Card

Ingalls Wins \$20.7 Million Navy Contract For Aegis Program Support

The U.S. Navy has awarded Pascagoula, Miss.-based Ingalls Shipbuilding division of Litton a \$20.7 million contract to continue engineering and planning support services for Arleigh Burke (DDG-51)-Class Aegis guided missile destroyers.

Ingalls currently has construction contracts for ten of the ships, the first of which, Barry (DDG-52), recently completed initial predelivery sea trials and is scheduled for commissioning later this year.

The support contract is the fourth element of a six year program which began in December 1988 with a total value of approximately \$100 million. About 300 Ingalls employees perform various technical, engineer-

ing and design tasks under the contract.

Global Marine To Operate Four Gulf Canada Vessels

Houston, Texas-based Global Marine has been selected to operate Gulf Canada's four-vessel BeauDrill icebreaker and anchor handling tug/supply fleet, and the floating drilling rig Kulluk, under a three-year contract.

Each of BeauDrill's four icebreakers can proceed through 1.2 meter ice at three knots and all have anchor handling, towing, bulk storage and transfer facilities for barite, cement, fuel and water.

The Terry Fox and Kalvik, two of the most powerful privately-owned icebreakers in the world, are equipped with four Stork Werkspoor 5,800-hp diesels, controllable-pitch propellers and a bowthruster/bubbler system.

The other two ships, the Ikaluk and Miscaroo, designed for primary anchor handling, have four Wartsila 3,725-hp diesel engines.

Deerberg Offers Brochure On Waste Handling, Interior Design

Through Deerberg-Trading, outfitting and interior design specialists, and Deerberg-Systems, a company specializing in waste-handling treatment, the Oldenburg, Germany-based Deerberg family of companies is able to provide the cruise ship and luxury ferry industry with a wide variety of services.

For example, Deerberg-Trading is able to offer high standard cabins, including bathroom units and furniture. The Clip In System (CIS) 600 model accommodation unit provides simplified installation—no screws are needed. The cabins also have excellent sound absorption qualities and offer substantial weight savings. Technical assistance, planning, design and turn-key installation are all available from Deerberg-Trading.

Other products available through the company include: guest safes, ships signs and marine auxiliary cranes.

For shipboard waste handling, Deerberg-Systems provides the cruise industry with the "Deerberg Concept." Designed around the size of the cruise liner, ship's operational area, and existing and forthcoming environmental regulations, the new Deerberg Concept is a total waste management plan under which all types of garbage (glass, tin, paper, cardboard, food waste, etc.) are fed unsorted, after the shredding process, into an incinerator. The burnable waste is reduced to ash.

Some of the advantages of this waste handling concept are: no pollution of the cruising area; optimal volume waste reduction/disinfected residuals; quick disposal of waste to the shore; simplified handling for the receiver; and recycling in shoreside facilities.

Both Deerberg-Trading and Deerberg-Systems have U.S. representatives located in Florida to provide customer support to the cruise industry.

For additional information on Deerberg-Trading and Deerberg-Systems,

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Aluminum Boats, Inc. Crown Point, LA



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Madisonville, LA*



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at competitive prices.**

TRINITY MARINE GROUP



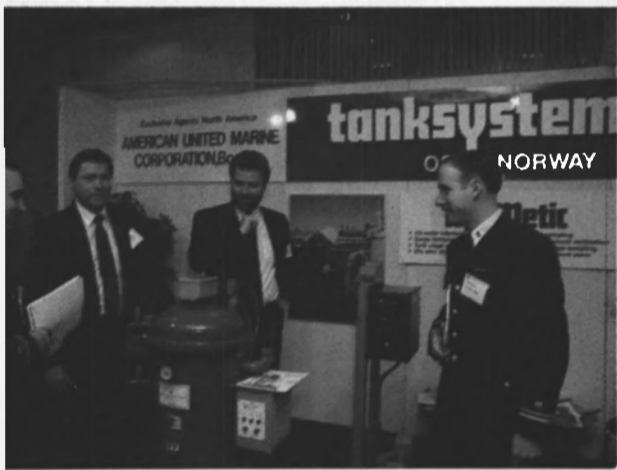
*Moss Point Marine
Inc.-South
Moss Point, MS*

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RIVERBOAT CASINO SHOWCASE



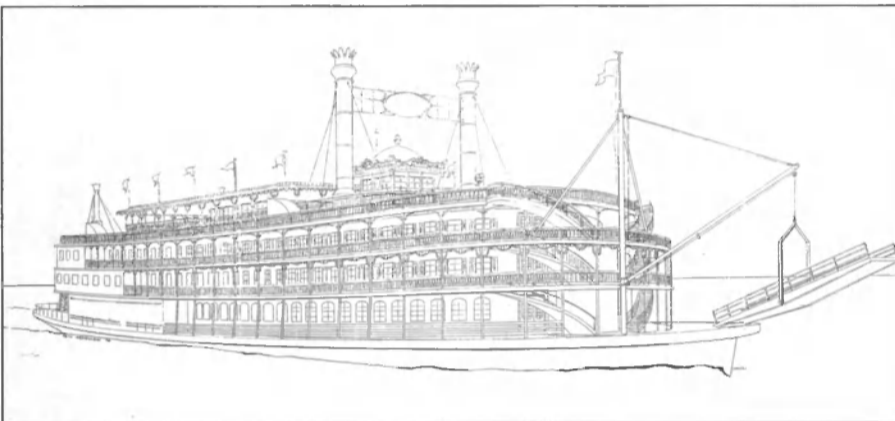
ALTON BELLE CASINO
 Dimensions: 156 x 34
 Capacity: 600
 Main engines: Cummins

Designer: Maritime Design
 Builder: Bender Shipbuilding
 Owner: Alton Belle Riverboat Gambling Part.
 Homeport: Alton, Ill.



PLAYERS RIVERBOAT CASINO
 Dimensions: 210 x 60
 Capacity: 1,200
 Main engines: MTU

Designer: Rodney E. Lay
 Builder: Leevac Shipyards
 Owner: S. Illinois Riverboat Casino
 Homeport: Metropolis, Ill.



PALACE STATION
 Dimensions: 334 x 96
 Capacity: 2,500
 Main engines: Caterpillar

Designer: Rodney E. Lay
 Builder: Not determined
 Owner: Palace Station Hotel-Casino
 Homeport: St. Charles, Mo.



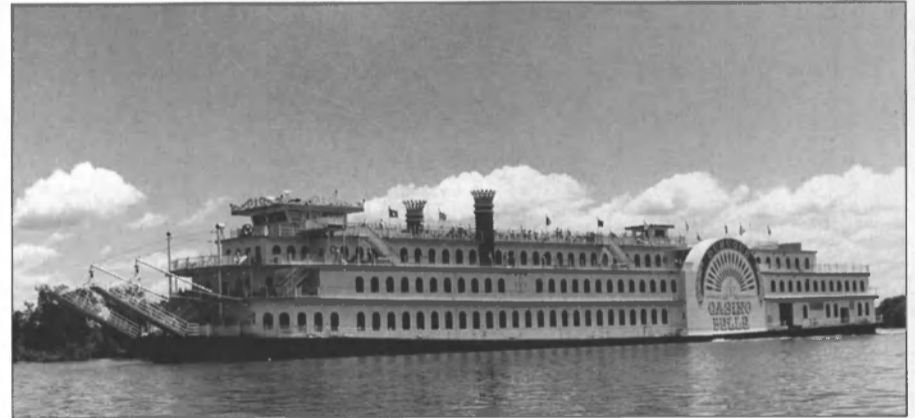
PRESIDENT RIVERBOAT CASINO
 Dimensions: 289 x 89
 Capacity: 3,000
 Main engines: N/A

Designer: DeJong & Lebet
 Builder: Custom Ship Interiors
 Owner: Connelly Group
 Homeport: Davenport, Iowa



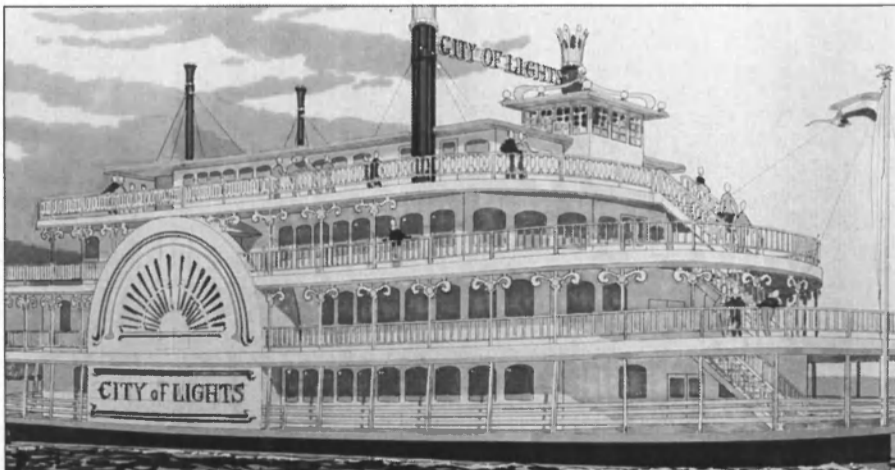
EMPRESS RIVER CASINO
 Dimensions: 222 x 66
 Capacity: 1,200
 Main engines: Caterpillar

Designer: Rodney E. Lay
 Builder: Atlantic Marine, Inc.
 Owner: Empress River Casino Corp.
 Homeport: Joliet, Ill.



DUBUQUE CASINO BELLE
 Dimensions: 387 x 60
 Capacity: 2,200
 Main engines: Cummins

Designer: Patti Shipyard
 Builder: Patti Shipyard
 Owner: Roberts River Rides
 Homeport: Dubuque, Iowa



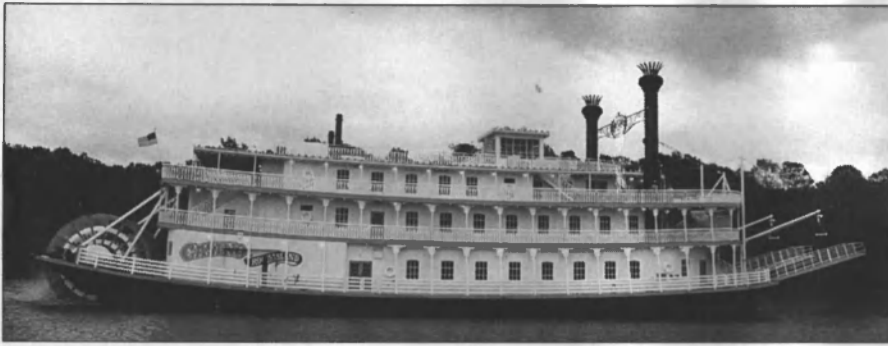
CITY OF LIGHTS I & II
 Dimensions: 145 x 45
 Capacity: 600
 Main engines: Cummins

Designer: DeJong & Lebet
 Builder: Garbe Iron Works
 Owner: Pratt Industries
 Homeport: Aurora, Ill.



DIAMOND LADY/EMERALD LADY
 Dimensions: 201 x 46
 Capacity: 1,200
 Main engines: Caterpillar

Designer: John Gilbert
 Builder: Atlantic Marine, Inc.
 Owner: Steamboat Development
 Homeport: Bettendorf, Iowa



CASINO ROCK ISLAND
 Dimensions: 190 x 45
 Capacity: 1,000
 Main engines: Caterpillar

Designer: Rodney E. Lay
 Builder: Leevac Shipyards
 Owner: Jumer Hotels Ltd.
 Homeport: Rock Island, Ill.



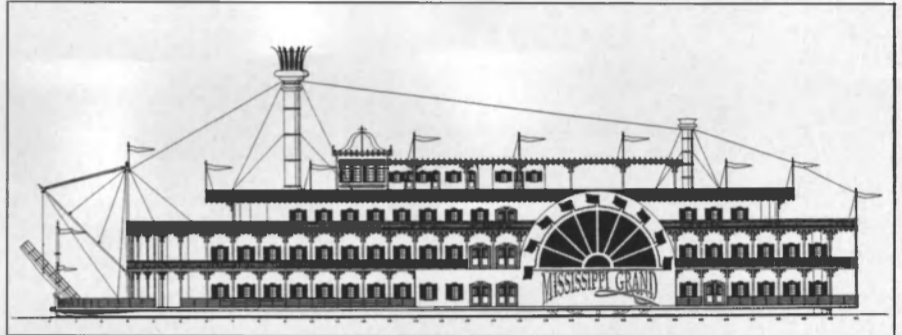
MISSISSIPPI BELLE II
 Dimensions: 199 x 46
 Capacity: 500
 Main engines: Cummins

Designer: Patti Shipyard
 Builder: Patti Shipyard
 Owner: Roberts River Rides
 Homeport: Clinton, Iowa



PRESIDENT CASINO MISSISSIPPI
 Dimensions: 288 x 65
 Capacity: 1,500
 Main engines: Caterpillar

Designer: DeJong & Lebet
 Builder: Leevac Shipyards
 Owner: Connolly Group
 Homeport: Biloxi, Miss.



MISSISSIPPI GRAND CASINO
 Dimensions: 310 x 120
 Capacity: 3,000
 Main engines: Not powered

Designer: Rodney E. Lay
 Builder: Not determined
 Owner: Mississippi Grand Resort & Casino
 Homeport: Tunica, Miss.




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In the high-stakes business of riverboat gaming, Bender Shipbuilding's rapid delivery puts you ahead of the game. When Illinois river waters opened to gaming last year, Bender's swift 90-day conversion raced the *Alton Belle Casino* to this new market far ahead of its competition.

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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" x 12" h
Weight:
 40lbs. dry, 115lbs. wet
Power:
 low draw
 12 volt system
 drawing 6 amps
 or 110 volt
 drawing 10 amps

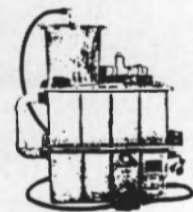
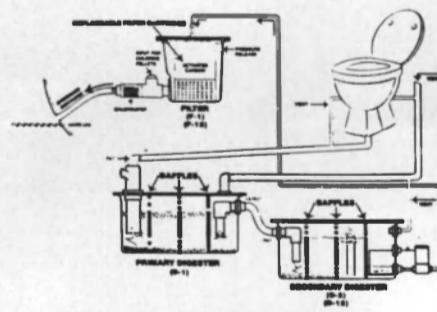
Unique Simple Process

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 Fuss, 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.

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 (three components)
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Weight:
 66lbs. dry, 225lbs. wet
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Models available for any crew size

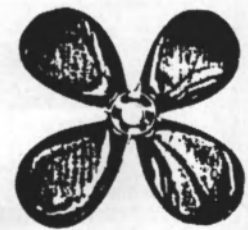


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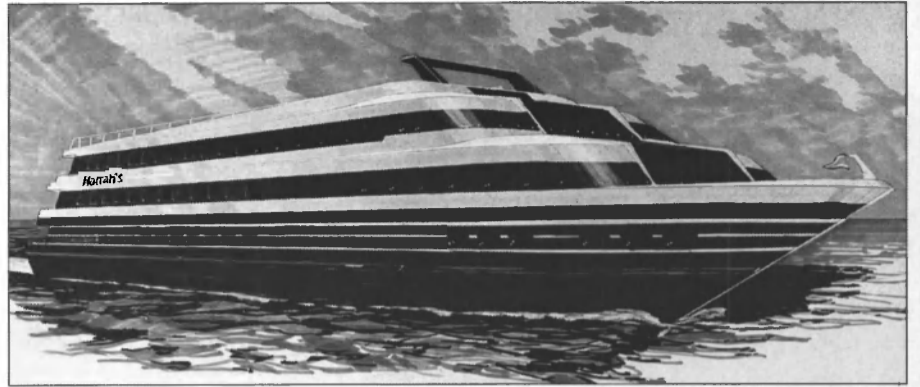


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PAR-A-DICE
 Dimensions: 227 x 46
 Capacity: 1,068
 Main engines: Caterpillar

Designer: John Gilbert
 Builder: Atlantic Marine, Inc.
 Owner: Greater Peoria Riverboat Corp.
 Homeport: Peoria, Ill.



HARRAH'S CASINO CRUISES
 Dimensions: 210 x 68
 Capacity: 1,200
 Main engines: N/A

Designer: SMI/DeJong & Lebet
 Builder: Service Marine, Inc.
 Owner: Des Plaines Development Ltd. Partnership
 Homeport: Joliet, Ill.

**OTHER VESSELS
 UNDER CONSTRUCTION**

UNNAMED (for sale)
 Dimensions: 447 x 60; Capacity:
 2,000-3,000; Designer & Builder:
 Patti Shipyard; Owner: Roberts
 River Rides; Homeport: Not deter-
 mined.

LADY LUCK OF NATCHEZ
 Dimensions: 293 x 55; Designer:
 Bill Preston; Builder: Not deter-
 mined; Owner: Lady Luck Hotel &
 Casino; Homeport: Natchez, Miss.

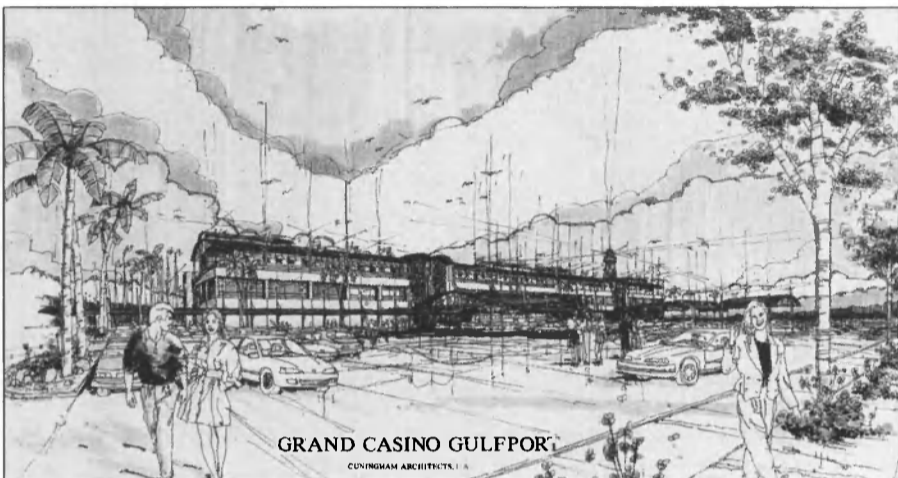
SPIRIT OF AMERICA
 Dimensions: 273 x 73; Capacity:
 1,500; Designer: DeJong & Lebet;
 Builder: Serodino Shipyards; Owner:
 Not available; Homeport: Gulfport,
 Miss.

GALENA EAGLE
 Dimensions: 205 x 45; Capacity:
 1,000; Builder: Bender Shipbuild-

ing; Owner: Eagle Rock Resort;
 Homeport: East Dubuque, Ill.

DESIGNS ON THE BOARD

Several riverboat gaming vessels designs are being offered by various naval architects and shipbuilders. Among some of the major designs being offered include: a 422-foot by 100-foot sternwheeler from DeJong & Lebet, a 407-foot sternwheeler from Houma Fabricators, a 370-foot, five-deck sidewheeler from Guido Perla, 350-foot sidewheeler from Bill Preston, 350-foot sternwheeler from Service Marine Industries, 350-foot sternwheeler from John Gilbert & Associates, 240-foot sidewheeler from Rodney E. Lay & Associates, and a 200-foot sternwheeler from Freeport Shipbuilding.



GRAND CASINO GULFPORT
 Dimensions: 295 x 54, four barges
 Capacity: N/A
 Main engines: Not powered

Designer: DeJong & Lebet
 Builder: Service Marine, Inc.
 Owner: Grand Casino, Inc.
 Homeport: Biloxi, Miss.

INTERIORS

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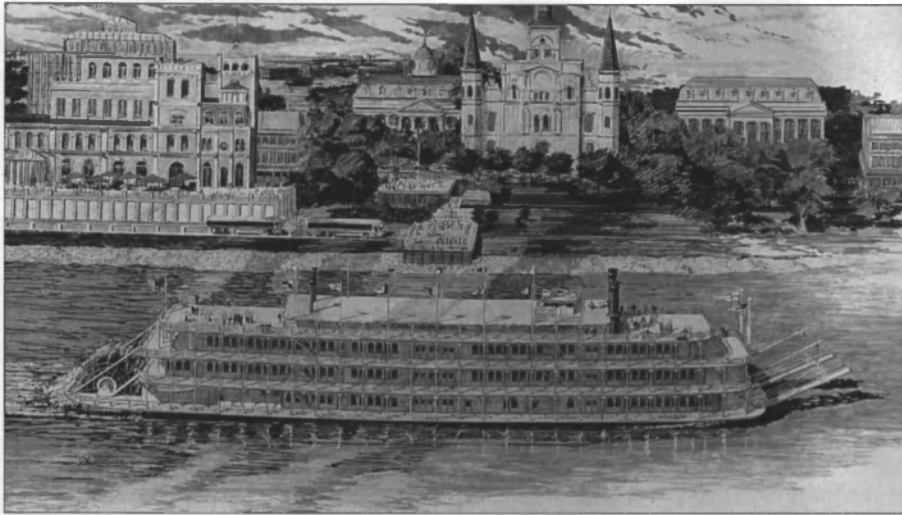
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Boats & Barges



Artist's conception of the 350-foot, 3,000-passenger paddlewheeler designed by Service Marine Industries, Inc., for operation in Louisiana.

Casino, Dinner Boat Orders Keep Service Marine Busy

New passenger boat construction spurred by both the excursion/dinner vessel and casino boat markets continues at a torrid pace at the Morgan City, La., shipyard of Ser-

vice Marine Industries, Inc. (SMI). After delivering the fourth passenger boat built for Spirit Cruises, Inc., in April, Service Marine started "fast track" construction of Harrah's

new casino boat destined for operation out of Joliet, Ill.

According to **Tom Hensley**, vice president of marketing, the Harrah's boat will be one of the most glamorous riverboat casinos. Borrowing from the designs of many large modern cruise ships, the 210- by 68-foot, 1,200-passenger boat will feature an atrium through its second and third decks. A brass and glass passenger elevator will pass through the atrium. The firm of Morse and Brown is the interior designer and, according to Mr. Hensley, the design themes and color and material selections are comparable to those found in Las Vegas.

SMI has designed the boat for total passenger comfort, with high ceilings, good traffic flow, and several restrooms. A special onboard smoke exhaust system combined with 465 tons of Carrier Transicold air conditioning, as well as special soundproofing and vibration isolators will add to passenger comfort.

Launched in mid-July, the boat is scheduled for an early January 1993 delivery.

In addition, SMI has developed three paddlewheel casino boat designs for Louisiana and is currently conducting discussions with several casino groups planning to put boats in service in the state. By law, gaming vessels operating in Louisiana must be paddlewheelers. The largest paddlewheel design from SMI is a 350- by 90-foot, 3,000 pas-

senger boat for New Orleans. The two other boats are smaller, but are similar in appearance.

Other activity at the yard created by the growing casino market included the recent barge conversion and structural steel frame work for a two-story Mississippi casino. The 295- by 74-foot floating casino is owned by Mardi Gras Casino and will be located in Bay Cove, Bay St. Louis, Miss.

Furthermore, the Louisiana builder is currently working on the conversion of four 295- by 54-foot barges that will provide the foundation for Grand Casino's three-story casino going to Biloxi, Miss. According to Mr. Hensley, barge conversion and conventional structural steel framing are the fastest and least expensive methods of entering Mississippi's floating casino business. Trying to convert existing boats leads to unusable space, draft, stability problems and ultimately higher costs.

"The conversion time takes longer too, said Mr. Hensley, "and when time is of the essence, starting with a bare deck and building exactly what you want makes a lot of sense."

For free literature detailing the boatbuilding capabilities of Service Marine Industries, Inc.,

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Your Best Bet.

WHEN ATLANTIC MARINE BUILDS YOUR BOAT—
THE ODDS ARE IN YOUR FAVOR.



EMPRESS — 222' x 66' Catamaran-style gaming vessel delivered to Des Plaines River Entertainment Corporation, Joliet, Illinois. This eloquent 1200 passenger casino boat will cruise the Des Plaines River on gambling excursions.



Atlantic Marine, Inc.

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This vessel was built just as tough as the job she has to do. Built by proud Florida shipbuilders who bring generations of craftsmanship to every project.

They carry on their skilled tradition in one of the South's best equipped yards. Spacious assembly buildings, five assembly locations, sophisticated welding capabilities and year 'round good weather make it possible to build a wide variety of vessels and to build them well.

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AND WE DELIVER IT ON SCHEDULE.**

Circle 205 on Reader Service Card

Free Guide To Additive Injector Systems For Diesel Marker Regulations

Hammonds Technical Services, Inc., Houston, Texas, is offering their informational "Injector Q&A" literature that answers questions about fluid additive injector systems by discussing the design and quality of injectors, their purposes and how they're used.

The guide is particularly useful at this time with coming Environmental Protection Agency (EPA) requirements for dye marker systems to detect high sulfur fuels.

Hammonds is a leader in the design and manufacture of additive injector equipment.

To receive Hammonds' "Injector Q&A" guide or other product information,

Circle 63 on Reader Service Card

Kvichak Marine Completes Retrofit Contract For Foss Spill Response Boats

Kvichak Marine Industries, Seattle, Washington, recently completed a contract to retrofit pilot house elevations to three of the nine spill response vessels (SRVs) it had previously built for Foss



One of the Foss spill response vessels with retrofitted pilot house from Kvichak Marine.

Environmental Services, a division of Foss Maritime Company.

To match the better visibility and additional dry storage space of the other six 32-foot, all-aluminum vessels, Kvichak designed and prefabricated 24-inch-high pilot house foundations. The boats were then brought to the company's facility for installation at the rate of one a week to minimize their out-of-service time.

The nine Kvichak-built SRVs are part of Foss Environmental's oil spill response fleet that is prepositioned throughout Washington State waters from Grays Harbor to Seiku and throughout Puget Sound.,

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BethShip, Sparrows Point Tunnel Section Project On Schedule

Work is progressing on schedule at Bethlehem Steel Corporation's

BethShip, Sparrows Point Yard, Md., on the 12 steel sections of a tunnel that will carry four lanes of Interstate 90 beneath Boston Harbor for a distance of 3,900 feet.

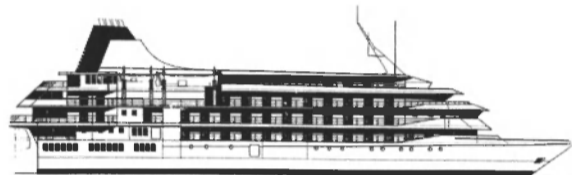
The shipyard was awarded the more than \$60 million contract by the joint venture of Morrison Knudsen/Interbeton/J.F. White, which received the prime contract from the Commonwealth of Massachusetts.

The 12 sections, each 85 feet wide, 42 feet high and 325 feet long, will require a total of 15,000 tons of steel plate. The yard began fabricating the steel sections for the immersed tube tunnel last December and the last tunnel section is scheduled for delivery to Boston Harbor in May, 1993.

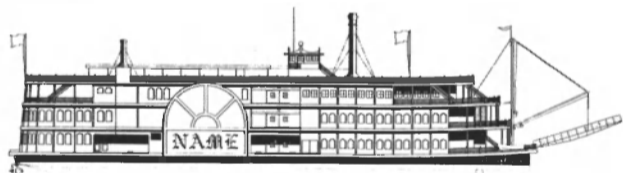
For free information about the services and facilities available from BethShip, Sparrows Point Yard,

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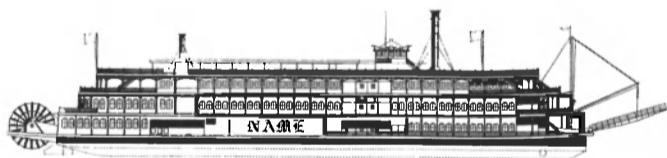
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Boats & Barges



The Textron-built N.Y. City SES fireboat John P. Devaney.

Textron Marine Delivers First Of Two SES Fireboats For New York City

Textron Marine Systems, a division of Textron, Inc., New Orleans, La., recently delivered the first of two Surface Effect Ship (SES) multipurpose fireboats under a \$6.5 million contract to the New York City Fire Department. The 30-knot fireboat, John P. Devaney, led the procession of tall ships in New York

Harbor as part of the recent OpSail 92 celebration.

In addition to enhanced fire suppression capabilities, the new SES craft will also provide search and rescue, security and patrol, and pollution control services.

An SES is a waterborne, air-supported craft with catamaran-like

rigid side hulls. The SES uses a cushion of air trapped between the side hulls and flexible bow and stern seal to lift the center portion of the hull clear of the water, reducing drag and increasing efficiency and speed. A portion of the side hulls remains in the water to provide the craft with maneuverability and stability. High craft speed is the key factor in the reduction of response time to a harbor incident and, with the resultant low wake, the SES is one of the fastest designs in modern marine engineering technology. The SES design is backed by years of record performances as U.S. Coast craft.

The John P. Devaney has a length of 70 feet and beam of 20 feet. Her stationary draft is 5 feet 4 inches and air cushion draft, 3 feet 6 inches, making shallow-draft areas around piers and along the shoreline accessible. She is powered by two GM 8V 92 TI marine diesels, rated at 450 hp at 2,000 rpm. A GM 6V 92 TI diesel, rated at 400 shp at 2,300 rpm, provides power for the lift fan. A fourth engine, a GM 8V 92 TI, provides power for the vessel's fire pump, which has a capacity of 7,075 gph at 100 psi at the pump. Fire monitors for the vessel were supplied by Stang.

Navigation and communication equipment on board includes a fire, police, and Ray-30 VHF/FM marine radios, Raytheon loud hailer, Loran-C, and Furuno radar.

For free literature detailing the boatbuilding capabilities of Textron Marine Systems,

Circle 97 on Reader Service Card

Kvaerner Eureka's Cargo Handling System Chosen For FPSO Ship

An integrated cargo handling and control system from Kvaerner Eureka A.S., Lier, Norway, has been specified for a 99,800-dwt floating production storage offloading (FPSO) vessel recently contracted from Samsung Heavy Industries by Australia's BHP Petroleum Pty, Ltd., part of Broken Hill Pty Co., Ltd., of Melbourne.

The system was selected by BMP because it is environmentally safe and requires reduced maintenance.

The Australian FPSO, due for delivery from Korea in 1984, will be equipped with nine submerged, hydraulically-driven Kvaerner Eureka CK300 type cargo pumps, hydraulic power packs and a computerized cargo control system.

The BHP newbuilding will load Indonesian crude oil, process the crude onboard and store the oil in nine cargo tanks, before offloading the crude into shuttle tankers for transport to Australian terminals onshore.

This is the first time that Kvaerner's integrated cargo discharge system has been specified for FPSO operations. The first installation of this system was aboard two 46,087-dwt crude oil/product/chemical carriers in 1991.

To receive free literature about Kvaerner Eureka's integrated cargo handling and control system,

Circle 44 on Reader Service Card



The 246-foot twin-screw ferry Grand Manan V was built by Conoship Contracting for the Ministry of Transportation of the Province of New Brunswick, Canada.

\$300 Million Order Book At Conoship International Yards

For almost 40 years, Conoship International has been the joint marketing, sales, design and engineering force of 10 shipyards in the northern part of The Netherlands. During this time, Conoship International has proved to be of vital importance for the shipbuilding industry in this part of the country.

Last year, Conoship International, based in Groningen, The

Netherlands, and its associated yards posted an extremely successful year, receiving contracts to build 16 vessels and delivering 13 other vessels. The composition of 1991 deliveries, with several highly sophisticated newbuildings, included: nine dry cargo vessels, ranging in size from 1,600 dwt to 12,240 dwt; two beam trawlers; one shallow-draft ethylene carrier; and one bi-

tumen tanker. This followed a successful 1990, in which the shipyards received orders for 21 vessels.

The present order book includes 29 vessels worth approximately \$300 million. The order book consists of 11 dry cargo ships, ranging in size from 2,000-3,000 dwt; three liquefied gas carriers, ranging in capacity from 2,000-4,200 m³; seven 2,000-hp beam trawlers; one 7,500-dwt stainless steel chemical tanker; four inland tankers; two RO/RO trailer carriers; and one 63-meter hydrographic research vessel.

Activity At Yards

Following the delivery of a bitumen tanker for an Irish owner and a dry cargo vessel, Barkmeijer Stroobos Shipyard is now constructing a liquefied gas carrier and a second dry cargo vessel.

Bodewes Volharding Shipyard delivered a second shallow-draft ethylene carrier to India. After completion of two beam trawlers, they have begun the construction of a hydrographic research vessel for the Dutch Government.

Bijlsma Shipyard built a series of four 3,000-dwt dry cargo ships in 1991. As of early this year, they began a new series of seven 2,200-dwt dry cargo vessels based on the "Bijlsma Trawler 2200" design. Every 10 weeks a vessel is expected to be delivered.

Metz Shipyard, a specialist in fish-

ing vessels, has delivered four Cesta 2000 series trawlers since late 1991.

The third vessel in a series of flexibox carriers is under construction at Niestern Sander Shipyard.

Tille Shipyards completed seven multipurpose 12,240-dwt dry cargo ships and two high-speed passenger catamarans. Four inland tankers and two RO/RO trailer carriers are currently under construction for Italian owners. Like the multipurpose dry cargo vessels, these trailer carriers are being built at the Frisian Shipyard.

The lengthening of two six-year-old chemical tankers is expected to get underway shortly at the shipyards of Harlingen en Welgelegen. A 7,500-dwt chemical with stainless steel cargo tanks is also under construction at the Welgelegen Shipyard.

All the associated Dutch yards have the experience of building several type vessels. Because of the close cooperation and exchange of information between the yards, this experience benefits all within Conoship International.

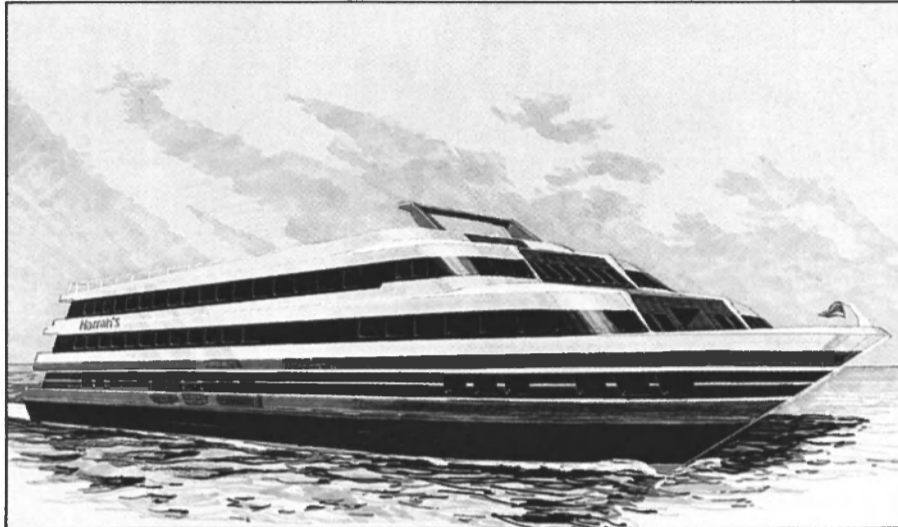
In addition, the 10 yards are able to offer high productivity, short delivery times, and covered newbuilding facilities.

For free literature detailing the shipbuilding capabilities of the Conoship International group of associated yards,

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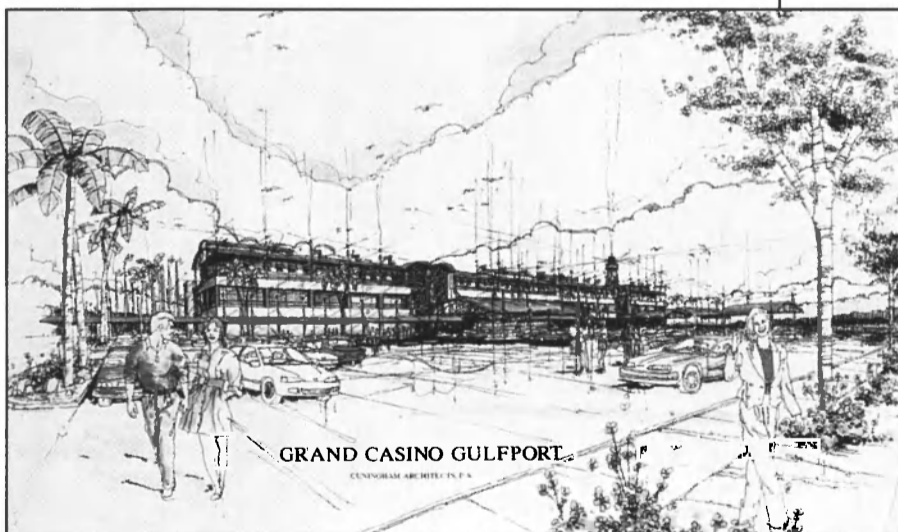
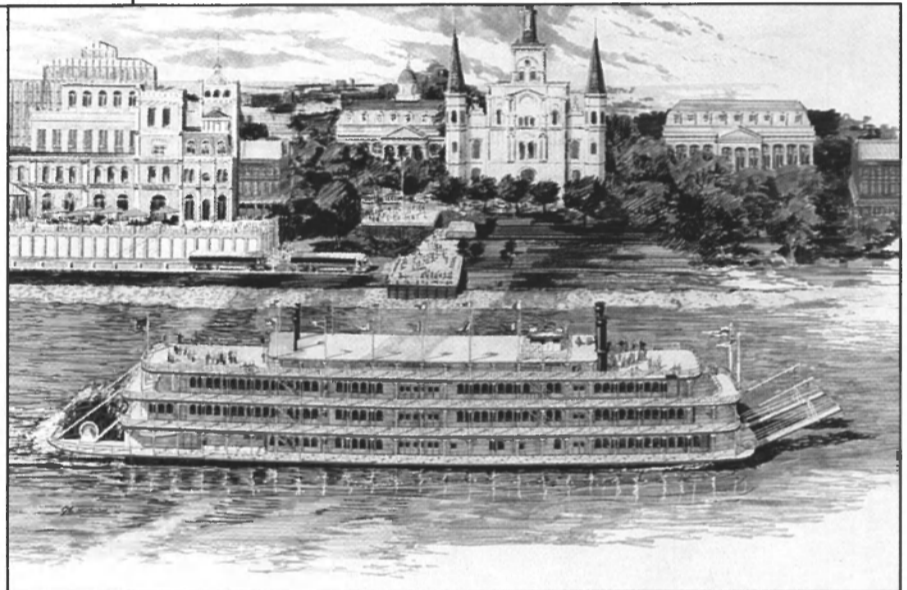
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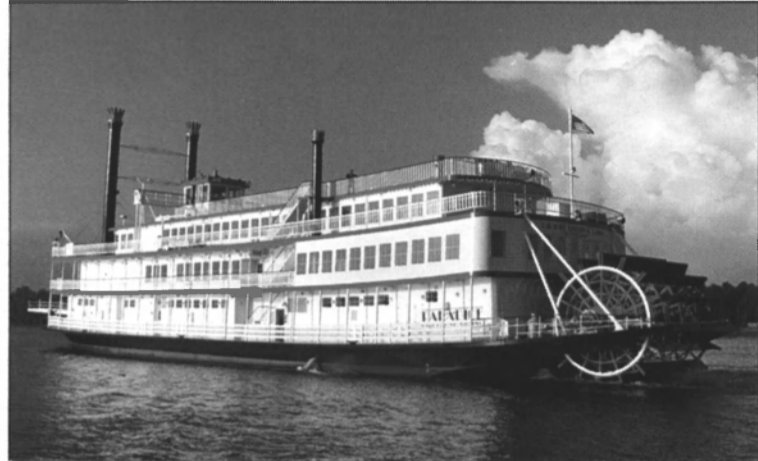


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ONS 92

Offshore Northern Seas

10th International Conference & Exhibition Stavanger, Norway, August 25-28, 1992

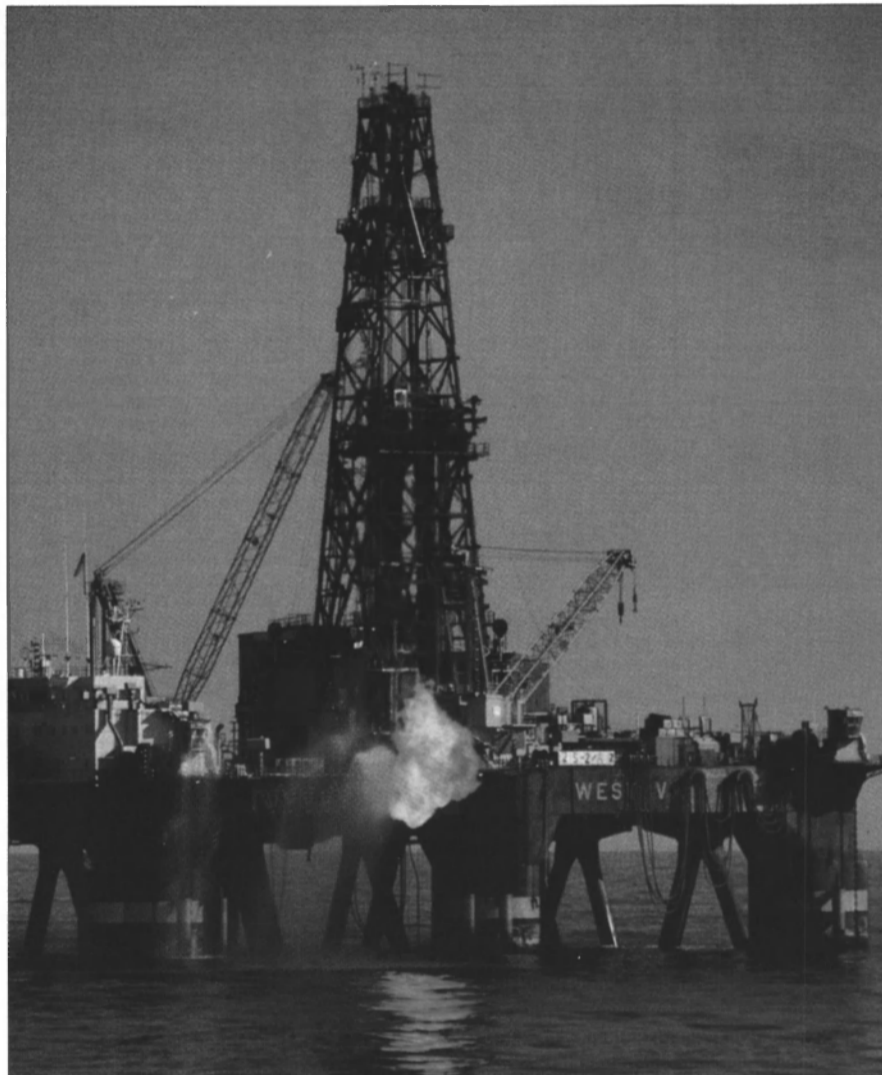
One of Europe's biggest exhibitions focusing on the offshore petroleum industry, Offshore Northern Seas (ONS) is set to take place from August 25-28, 1992 in Stavanger, Norway. This year's event will mark the 10th anniversary of Offshore Northern Seas, and it is expected to attract roughly 1,000 conference participants, including senior oil company executives, scientists, and top decision-makers in the offshore supply industry, as well as a number of political figures. Traditionally, the event has been officially opened by a member of Norway's royal family. HM King Harald V is the royal patron of the Offshore Northern Seas Foundation. This year, the Norwegian prime minister, as well as the minister of petroleum and energy are scheduled to speak on the opening day.

The show is expected to draw more than 900 exhibiting companies from around the world—a new record for Offshore Northern Seas. The Siddis Center show ground offers 18,500 square meters of exhibit space.

According to Nils B. Gulnes, chairman of the conference committee for ONS, and managing director of Amerada Hess Norge A/S, the main theme of the 1992 ONS conference is the political and technological perspectives of future energy markets in light of the sweeping changes currently affecting the energy sector.

Politically, these include the restructuring of Eastern Europe and the new framework provided by the European Energy Charter. In the technical field, oil companies are under greater pressure to cut costs to remain competitive, as well as to meet stricter environmental and safety rules.

The Offshore Northern Seas con-



ference program has been restructured this year to provide a concentrated one-day general conference focused on strategic energy issues, followed by two and a half days of technical meetings organized in parallel sessions.

Apart from exploring the main

conference theme, this meeting will consider such highly topical issues as global energy supply, the role of OPEC, developments in Russia and the overall world economy.

A new structure has also been adopted for the technical sessions, which are organized as a series of

workshops in order to promote a dialogue between oil companies and suppliers.

Each technical meeting will open with a review paper from an oil company, followed by a market analysis. Representatives from the supply industry are then given the opportunity to respond to the challenges and requirements outlined in the initial presentations.

Attention will be given to environmental and safety issues throughout the conference.

The shelf off central Norway has proved to be one of the world's most productive petroleum areas, with 530 million tons of oil equivalents (TOEs) in proven reserves and 1 billion TOEs remaining to be found.

Six finds have been made in the area over the past two years alone, two hydrocarbon strikes have now been made in the Cretaceous—a target not drilled in mid-Norwegian waters before.

According to Norwegian Petroleum Directorate (NPD) estimates, as many as 3.5 billion TOE remain to be found in Norwegian waters, with oil representing about 30 percent of these reserves. Twenty-seven years of drilling in Norwegian waters have yielded 5.3 billion TOE, with oil accounting for about 40 percent.

About NOK 80 billion has been spent on drilling in Norwegian waters so far, with an additional NOK 165 billion committed under approved development plans.

Studies related to about 20 existing Norwegian fields suggest improved oil recovery (IOR) techniques could add a further 400 million-800 million TOE from all present and potential discoveries.

IOR projects are already in place on Ekofisk, with pilot projects ini-

OFFSHORE NORTHERN SEAS CONFERENCE PROGRAM AT A GLANCE

Tuesday, September 25

12:30-5 p.m.—Inauguration-Strategic Energy Issues.
7-9 p.m.—Gala Concert by the Stavanger Symphony Orchestra.

Wednesday, September 26

9 a.m.-noon—Inauguration-Strategic Energy Issues.
12:30-4 p.m.—Topical Luncheon—"Norway and Its Role in the Interna-

tional Energy Market."

EXPLORATION TECHNOLOGY
12:30-3:30 p.m.—"Strategies for Hydrocarbon Mapping and Depletion."

4-6 p.m.—"Trends in Exploration Technology."

FIELD DEVELOPMENT TECHNOLOGY

4-6 p.m.—"Trends in Field Development Technology."

Thursday, September 27

FIELD DEVELOPMENT TECHNOLOGY
9 a.m.-12:30 p.m.—"Subsea Technology."

2-6 p.m.—"TLP Technology."
DRILLING & WELL COMPLETION TECHNOLOGY

9 a.m.-noon—"Drilling Automation."
2-6 p.m.—"Horizontal Drilling."

Friday, September 28

TRANSPORTATION TECHNOLOGY
9 a.m.-noon—"Offshore Pipeline Technology."

1-4 p.m.—"Multiphase Flow."
FIELD OPERATIONS TECHNOLOGY

9 a.m.-noon—"Design for Optimum Operation Efficiency."
1-4 p.m.—"Abandonment."

tiated on the Oseberg and Gulfaks fields.

According to **Arild N. Nystad**, head of resource management division at NPD, the major IOR instruments are water, gas or water-and-gas (WAG) injection, as well as horizontal and long-reach wells.

"The possible use of tertiary methods demands oil prices high enough to justify their cost," said Mr. **Nystad**.

The major IOR systems will be

covered at ONS, which continues to be a leading forum for the international offshore oil industry and a prime vantage point for viewing the latest in innovative technology.

For further details on the Offshore Northern Seas Exhibition, contact: ONS Foundation, P.O. Box 410, N-4001 Stavanger, Norway; telephone: +47 4 55 81 00; or fax: +47 4 55 10 15.

ONS Exhibition Hours

Tuesday, September 25—9 a.m.-6 p.m.

Wednesday, September 26—9 a.m.-6 p.m.

Thursday, September 27—9 a.m.-6 p.m.

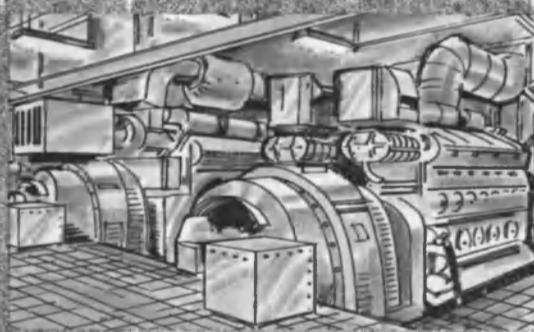
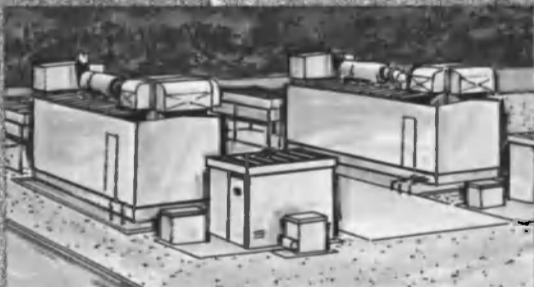
Friday, September 28—9 a.m.-4 p.m.

ONS '92 Exhibitors

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 Aker A/S
 Alfa-Laval Industri
 Allweiler A/S
 Amoco Norway Oil Company
 Ansell Jones
 Atlas Sealtech
 Atlas Wireline Services
 Autronica Stavanger Offshore A/S
 Avesta A/S
 BP Norway Ltd.
 Baker Hughes
 Bennex A/S
 Conoco Norway/DuPont
 Coper Rolls
 Cooper Oil Tool
 Dowell Schlumberger
 Draeger Norge A/S
 Dresser-Rand
 Elf Aquitaine Norge
 Esso Norge A/S
 European Gas Turbines
 Flo-Chem
 FMC Petroleum Equipment Group
 Gaz de France
 Ginge-Kerr Offshore A/S
 Glamox A/S
 GKL-Gummi A/S K Lund & Co.
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 Harding Safety A/S
 Hedemora Diesel
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 Honeywell
 A/S Hydralift
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ELECTRO MOTIVE

Circle 211 on Reader Service Card

Propulsion Update

Veth-Jet Bowthruster From Hyde Products To Be Installed On 'Mississippi'

Hyde Products, Inc., of Cleveland, Ohio, has delivered a Veth-Jet Bowthruster Model 2-K-1000 to Trinity Industries' Moss Point, Miss.-based Halter Marine shipyard for installation onboard the M/V Mississippi, a multipurpose towboat that will be delivered to the Memphis District of the Army Corps of Engineers later this year.

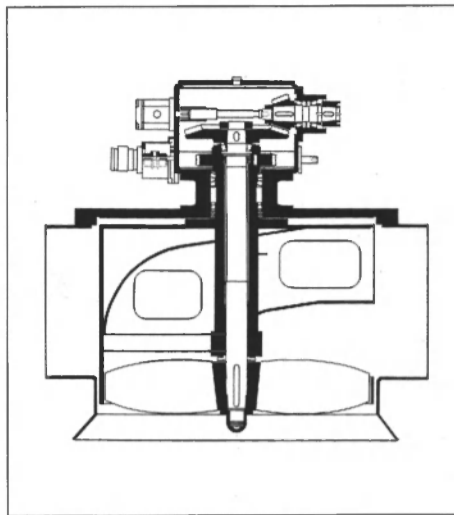
The vessel will be used by the Mississippi River Commission and will be equipped with a public conference room seating 200, accommodations for up to 78 passengers and quarters for commission members and crew.

The Mississippi will be able to push or tow up to sixteen 200-ft barges and will also be used during

high and low river inspections.

The 241-foot vessel will have a beam of 58 feet, depth of 12 feet, 6 inches and a design draft of 8 feet. Power is to be supplied by three diesels with a total of 6,100 hp. It is reported that the Mississippi will be the largest diesel-powered towboat ever built in the U.S.

The vessel's Veth-Jet thruster system, manufactured by Veth Motoren B.V., the Netherlands, includes a two duct thruster for port or starboard flow; thruster housing with hydraulic steering motor and three-blade propeller; complete hydraulic package including pump, motor and tank; and, complete electrical package with switchboard and local and pilot house steering panels.



Schematic drawing of the Veth-Jet bowthruster's horizontally mounted propeller unit.

The Veth-Jet is a straightforward, high reliability and low maintenance system. The fixed-pitch, horizontally-mounted propeller is driven by a right angle spirally cut bevel gear. Water is drawn from under the vessel's hull through a rotatable elbow around which a specially designed deflector guide ensures a minimum power loss.

The thruster's deflector guide is rotated by a hydraulic steering motor using a 24-volt signal.

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With over 420 units delivered, the Veth Jet is one of the most popular thrusters used in Europe. Veth-Jet bowthrusters are available in a range of sizes from 150 to 1,500 hp with two, three and four outlet ducts which allow a full 360-degree azimuthing, propulsor/retarder capability. Diesel, hydraulic or electric drives are available.

Hyde Products, a long established manufacturer of ship's deck machinery and steering systems, is the North American agent for Veth Motoren's Veth-Jet bowthruster.

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Boats and Barges



The U.S.-flag cruise vessel Mayan Prince will offer a diverse itinerary, with stops in Canada, Florida, the Eastern Caribbean and South America.

Blount Marine Delivers 175-Foot Cruise Vessel To American Canadian Line

Blount Industries Inc., Warren, R.I., recently announced the completion of the 99-passenger cruise ship Mayan Prince for U.S.-flag operator American Canadian Line.

Following delivery, the ship left its home terminal in Warren, R.I.,

on its maiden voyage to the Saguenay River, Canada, via the Erie Canal and the St. Lawrence Seaway. Later in the year, the Mayan Prince will cruise south to Florida and then to the Eastern Caribbean and South America.

The vessel is 175 feet by 39 feet,

draws 6-1/2 feet of water and sleeps 99 passengers in 47 cabins. She will operate to Canada via New York, sailing the Hudson River, Erie Canal, Lake Ontario, and St. Lawrence Seaway with stops at Montreal, Quebec City, Tadoussac and Baie Eternite, as well as several small villages.

It is the 8th small cruise ship designed and built at the Blount Shipyard in Warren.

Main propulsion for the Mayan Prince will be supplied by two Cummins model KTA-19M diesel engines, rated at 500 hp each at 1,800 rpm, connected to Twin Disc MG-518, 3:1 ratio, reduction gearing to 44-inch bronze Michigan propellers. A total of three pairs of 95-kw Cummins/Onan generator sets provide ships power, night time use power and emergency power for the craft.

Included in the features of the Mayan Prince are a convertible superstructure allowing passage under low bridges; a bow ramp for landing directly on beaches; a stern swimming and loading dock; very quiet engines and machinery; and individual push button and control of each cabins air conditioning.

For free literature detailing the shipbuilding services of Blount Marine,

Circle 58 on Reader Service Card

MAYAN PRINCE Equipment List

Main engines.....	Cummins
Reduction gears.....	Twin Disc
Propellers.....	Michigan
Steering.....	Wagner Hydraulic
Generators.....	Cummins/Onan
Bow thruster.....	Arcturus
Bow thruster engine.....	Cummins
A/C.....	Lunaire
Chiller plants.....	Dunham-Bush
Sewage treatment system.....	Omnipure
Engine cooling.....	Fernstrum
Fixed CO ₂ system.....	Chemtron
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Comex Develops Innovative Tour Sub

Comex Marine Parks, S.A., of Marseille, France, an international leader in the development of undersea technologies, has introduced one of the world's first self-contained tour submarines having an almost completely transparent hull.

The new sub gives its passengers a 360-degree view of the sea bottom through large transparent panels, as 70 percent of its hull is made with methacrylate (plexiglass). Several Seabus models are available of the same design with carrying capacities of between 20 and 60 passengers.

The sub's crew consists of a pilot and co-pilot. A 45-passenger model has an interior diameter of 7.2 feet, an overall width of 19 feet at the conning tower and a length of 63.6 feet. It can descend to a maximum depth of 200 feet and carry out as many as 12 plunges of 45 minutes each per day. The Seabus has a top forward speed of two knots using its two front, two vertical and two side propellers.

The pilot's navigational system includes an automatic pilot, an automatic system for maintaining depth, a gyrocompass and two echo sounders. The Seabus is also equipped with standard navigational lights plus several spotlights.

Classified as an A-1 manned submarine by French Control Bureau Veritas and the American Bureau of Shipping, Seabus is designed to operate in complete safety. All critical systems are duplicated and in the event of a power failure the sub is designed to resurface on its own.

To receive free literature about the Seabus tour submarine from Comex,

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MARKET PROSPECTS FOR CAPE-SIZE BULK CARRIERS INTO THE YEAR 2000

Depressed Market Expected To Recover And Peak In 1996

Owners of Capesize bulk carriers can expect no respite from current depressed demand and freight rates through the rest of 1992. Recovery should however start during 1993 but demand is only likely to catch up with supply by 1994. The market is then expected to reach a peak in 1996, similar to the 1988/89 rate boom, followed by a downturn in the final years of the decade. These are the main conclusions of a new report published by Drewry Shipping Consultants Ltd.

Freight rates across the dry bulk market have slumped in recent months but the Capesize sector has suffered worst as demand from its mainstay employers—iron ore and coal—is hit by weak economic activity in Japan and Western Europe. A return to strong economic growth in 1993/94 to regenerate dry bulk trade is one of the keys to a healthier freight market for large bulk carriers.

In Drewry's report the total volume of cargo shipped in 100-150,000 dwt dry bulk vessels is shown to stagnate in 1992, but is forecast to grow by some 18 percent to 254 million tons between 1991 and 1996 and by a further 8 percent to 275 million tons by 2000. The initial surge in shipments reflects recovery in both iron ore and coking coal trade and a booming steam coal sec-

tor.

The relative importance of iron ore and coal in cargo hauled by 100-150,000 dwt vessels will alter. In 1990 iron ore and coal held shares of 50 percent and 45 percent respectively. By 1996 iron ore's share will have slipped to 44 percent with coal's climbing to 52 percent, in 2000 41 percent and 55 percent respectively. The changes reflect faster growth in steam coal trade but also shifting ship deployment patterns. Iron ore market share held by 100-150,000 dwt vessels has stagnated in recent years at 30 percent and, as more larger vessels are deployed, is expected to ease to 29 percent. By contrast growth in steam coal shipments and upgrading from Panamax sized lots points to greater penetration of coal routes by 100-150,000 dwt ships, market share in total coal trade rising from 30 percent to 33 percent.

The second factor in the forecast mid-1990s recovery is a substantial increase in scrapping activity which will hold back supply growth. Not only are owners of Capesize tonnage experiencing low rates, but are also faced with myriad structural problems. An aging fleet, substandard tonnage, and losses at sea are forcing new, more stringent, regulations on owners leading to higher operating costs, fewer employment options

for older, early 1970s built tonnage, and pointing to intensive scrapping activity.

The fleet of 100-150,000 dwt bulk carriers totalled 28.4 million dwt at January 1, 1992 with 44 percent of vessels aged fifteen years or over. The report concludes that scrapping will gradually intensify, peaking in 1994, thereafter easing as owners respond to an improved trading environment. Together with a reasonable level of newbuilding it is projected that the fleet of 100-150,000 dwt bulk carriers will stabilize at around 28-29 million dwt over the next 4-5 years and then expand to some 34 million dwt by 2000.

In a discussion of the 100-150,000 dwt bulk carrier fleet's trading prospects, the report considers its past performance, present market role and future trading potential, identifying those commodities, trades and routes which employ bulk carriers of this size and also assesses the role of 100-150,000 dwt combined carriers in the freight market. Turning to fleet structure the report reviews size distribution, age profile, dimensions, flag of registry and ownership, and presents statistics on past fleet development, scrapping, ordering and deliveries.

The report also considers the costs of trading new and secondhand ships looking in turn at capital charges,

day-to-day running costs and voyage expenses. Comparisons are made between costs and revenues from operations in the single voyage and period charter markets over the 1987-91 period, so as to determine the profitability (or otherwise) of the 100-150,000 dwt bulk carrier. In addition the report focuses on future trends in newbuilding capital and operating costs.

Looking to the future, the report concludes that by 1994, time charter rates of around \$26-27,000/day will be needed to cover the costs (capital+operating) of a newbuilding delivery, climbing to \$30,000/day by 1996. Will actual Capesize rates climb to these levels? The projected buoyant freight market of the mid-1990s points to rates reaching the requisite levels, however, a weaker freight market in the final years of the decade suggests time charter rates will then ease as the costs of newbuilding deliveries continue to escalate.

Review copies of the complete report are available by contacting:

Drewry Shipping Consultants Ltd., 11 Heron Quay, London E14 4JF England.

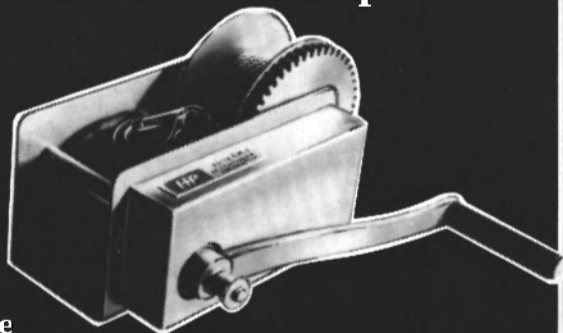
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Artists conception of the Navy's T-AGS 60-class oceanographic vessel, now under construction at Trinity's Halter Marine shipyard.

Trinity's Halter Marine Wins \$46.2 Million Option From Navy To Build Third Research Ship

The U.S. Navy has exercised a \$46.2 million (ceiling) option with Moss Point, Miss.-based Halter Marine, Inc., a member of the Trinity Marine Group which is owned by Trinity Industries, Inc., to build a 328.5-ft T-AGS 60 class oceanographic survey ship. Total ceiling contract value for the three research ships is approximately \$145 million.

The company was awarded a contract for the detail design and construction of the first two ships in January 1991, the USNS Pathfinder and USNS Sumner, now under construction at Halter Marine.

John Dane III, president of Trinity Marine Group, said: "We know our original design was a winner

and this contract indicates the Navy's confidence in our ships and the people who design and built them. And, speaking of people, this contract, along with the other two T-AGS 60 ships, will keep 300 people working at Moss Point through 1996. It will also provide work at another Trinity shipyard, Equitable Shipyards, Inc., in New Orleans, which will provide construction support."

The approximately 4,700-ton T-AGS 60 ship is capable of performing oceanographic survey operations in coastal and deep ocean areas. It is configured to perform oceanographic survey operations in the following ar-

reas: physical, chemical and biological oceanography; multi-disciplinary environmental investigations; ocean engineering and marine acoustics; coastal hydrographic surveys; marine geology and geophysics, and bathymetric, gravity and magnetic surveys in deep ocean and coastal areas.

The new class ships have been designed to meet specific mission objectives including: a comprehensive diesel-electric propulsion system; a minimization of hull vibration; low radiated noise emissions; excellent seakeeping characteristics; a high degree of maneuverability; and the ability to launch, recover and tow a variety of scientific packages.

In general, the T-AGS 60 class ships will be capable of conducting extensive environmental investigations throughout the world's oceans. According to Mr. Dane, Trinity is the leading designer and builder of specialized oceanographic ships for the Navy, citing Trinity's experience in building T-AGOS 13 through 18, oceanographic surveillance ships, T-AGS 51 and 52, hydrographic survey ships, and AGOR-23, an oceanographic survey ship.

For free literature about the services and facilities offered by Trinity Marine Group,

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UASC Plans \$900 Million Shipbuilding Program

It has been reported that the United Arab Shipping Company (UASC), jointly owned by six Middle Eastern governments, is planning a major ship order worth up to \$900 million. **Mohammed Al-Rayyes**, chairman of the company, stated that UASC's directors had agreed

to build "nine or ten" containerships.

While delivery dates have not yet been specified, tenders for the new ships will be issued before the end of 1992 and the final contract price for each vessel is expected to be between \$75 million and \$90 million.

According to shipyard experts, UASC will probably present requirements for 3,500-TEU capacity vessels. The company's current fleet consists of containerships of around 1,500 TEU and 2,000 TEU.

Mr. Al-Rayyes said that 30 percent of financing for the new vessels would be supplied by the company and the remainder borrowed on the international market.

Edison Chouest Offshore Awarded \$15.8 Million Contract From MSC

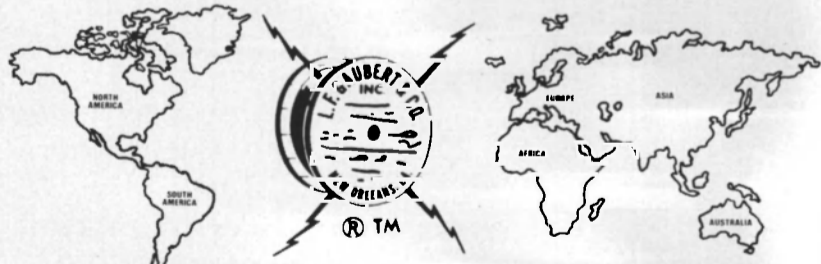
The U.S. Navy's Military Sealift Command Central Technical Activity has awarded a \$15,797,760 firm fixed-price contract (with cost reimbursable element) to Edison Chouest Offshore (ECO), Inc., of Galliano, La., for the charter of the deep submergence support ship M/V Laney Chouest.

The contract covers the basic 17-month contract period as well as two additional 17-month option periods, and is a direct continuation of the present contract MSC has with ECO.

M/V Laney Chouest will support deep ocean search and recovery operations under the direction of Submarine Development Group One in San Diego, Calif. The ship is capable of providing open ocean transportation and logistical support.

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Atlantic Marine Announces Three Senior Management Promotions

At a recent board of directors meeting, Atlantic Marine, Inc., Mobile, Ala., announced three senior management promotions.

The company's controller and assistant secretary-treasurer since March 1989, **Dean R. Kelly**, is now vice president and chief financial officer of both Atlantic Marine and Alabama Shipyard, Inc. Mr. Kelly has been employed by Atlantic in various accounting/finance positions since January 1981.

Stephen R. Johnson was promoted from production manager to vice president of production. He has 20 years of maritime industry experience which includes vessel operations, vessel management, new construction and vessel repair shipyard management. Mr. Johnson joined Atlantic in 1991 as production manager.

The company's new vice president of sales and marketing, **David A. Enman**, was promoted from the position of manager estimating and marketing. Beginning his career as a graduate apprentice at Bath Iron Works, Maine, Mr. Enman joined Atlantic in October 1989 as project manager and soon moved into the position of estimating manager, a position he held for 18 months. As vice president of sales and marketing, he will be responsible for business development.

APL Asks For MarAd OK To Extend Feeder Services

The Oakland, Calif.-based American President Lines (APL), Ltd., is asking for permission from the U.S. Maritime Administration (MarAd) to continue its Far East and Middle East foreign-flag feedership services until 1998, when its operating subsidy contract expires.

U.S.-flag operators seeking to operate foreign-flag ships that might compete with other U.S. shipping companies must first seek a special waiver for a specific period of time from MarAd.

APL is also requesting authority to increase the authorized capacity of one of its Red Sea regional feeder vessels to the equivalent of 500 forty-foot cargo containers from its current 350 boxes.

MarAd has already granted APL permission to charter a containership to Lykes Brothers Steamship Company, Inc., New Orleans, for one year.

As part of current regulations governing companies such as APL that receive government subsidies to offset the cheaper operating costs of foreign-flag competition, MarAd must approve all of these activities.

NKF Engineering Offers LAYERS Computer Code For Acoustic Design

NKF Engineering, Inc., of Arlington, Va., with over 35 years of experience in acoustic analysis and testing, announced the release of the LAYERS 1.0 computer code for design of acoustic enclosures for marine machinery.

A state-of-the-art computation tool, LAYERS allows the user to rapidly achieve the optimum enclosure design by providing fast and accurate transmission loss (TL) predictions through a desired frequency range. The TL for any layered panel is made realistic by accounting for compressional and shear waves, damping, field incidence and mass. Octave or third octave band computations are available and include band averaging for complex inci-

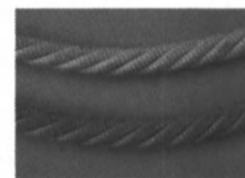
dence patterns as a standard feature.

The LAYERS software package has been used in marine applications involving treated decks, double partitions, suspended overheads, double-treated bulkheads and acoustic enclosures.

To receive a free brochure detailing the capabilities of NKF Engineering's LAYERS 1.0 computer code,

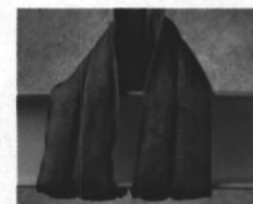
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USS Mississippi (CGN 40) Official U.S. NAVY photograph

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lines of Du Pont KEVLAR aramid with a KEVLAR/DACRON® polyester fiber jacket were used. Stronger, lighter and smaller than incumbent nylon and polyester lines, mooring lines of KEVLAR last longer and don't stretch as much, giving better positioning control dockside.

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McClure Associates Plans Spill Response Boat

A consortium of international oil companies plans to establish an oil spill response center in Singapore to respond to any accident throughout East Asia and Australia. In response to this program, tentatively named East Asia Response, Ltd., (EARL), Alan C. McClure Associ-

ates, Houston, Texas, has generated plans for a fast oil spill response (OSR) vessel, the ACMA-19.

Light enough for air transportation, the 35.5-ton ACMA-19 will spearhead the response to spill accident sites. Once deployed, twin MTU 183TE62 750-hp engines enable the vessel to carry a 9.8-ton payload at 25 knots. The vessel's length is 63.3 feet, beam 27.9 feet and its full load draft is 3.1 feet.

An all aluminum catamaran design was chosen for the vessel because of its greater stability during OSR operations, large deck area and reduced weight. The ACMA-19 is fitted with an HIAB Sea Crane 23 capable of lifting 1,400 lbs at a reach of 11.5 feet to facilitate the handling of OSR equipment.

For 17 years McClure Associates has been a leader in the development of advanced marine designs.

To receive additional information about McClure's OSR vessel,

Circle 10 on Reader Service Card

CG's Response Plan Regs To Cost \$1.3 Billion Over 24 Years

The U.S. Coast Guard has recently drafted regulations to implement a vessel oil spill response plan scheme, which is expected to cost the industry an estimated \$1.3 billion over the next 24 years.

Accounting for \$1.123 billion or 86 percent of the total figure will be tanker companies ensuring that they have an adequate shore-based response capability.

Expenditures on oil spill response drills and training, estimated at \$122 million between now and 2015, will be the second costliest item.

CG estimates indicate that the incremental cost of the entire regulation would be \$187 million this year, decreasing to \$155 million a year between 1995 and 2015.

The costs to major oil companies, who can spread expenses over large fleets, is estimated to be \$3,400 per vessel, while smaller companies can expect costs of \$26,000 to \$36,800 per vessel.

Tankers operating near ecologically sensitive Valdez, Alaska, will have somewhat higher costs, corresponding with stricter area requirements.

Vessel oil spill response plans must be submitted to the CG by February 18, 1993. At least 5,000 submissions are expected.

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Refinery Closings Expected To Boost Product Tanker Demand

If the U.S. Clean Air Act forces many of the nation's smaller and older refineries to close as expected, U.S. refined product imports and the subsequent demand for product tankers would increase to compensate for reduced U.S. refining capability.

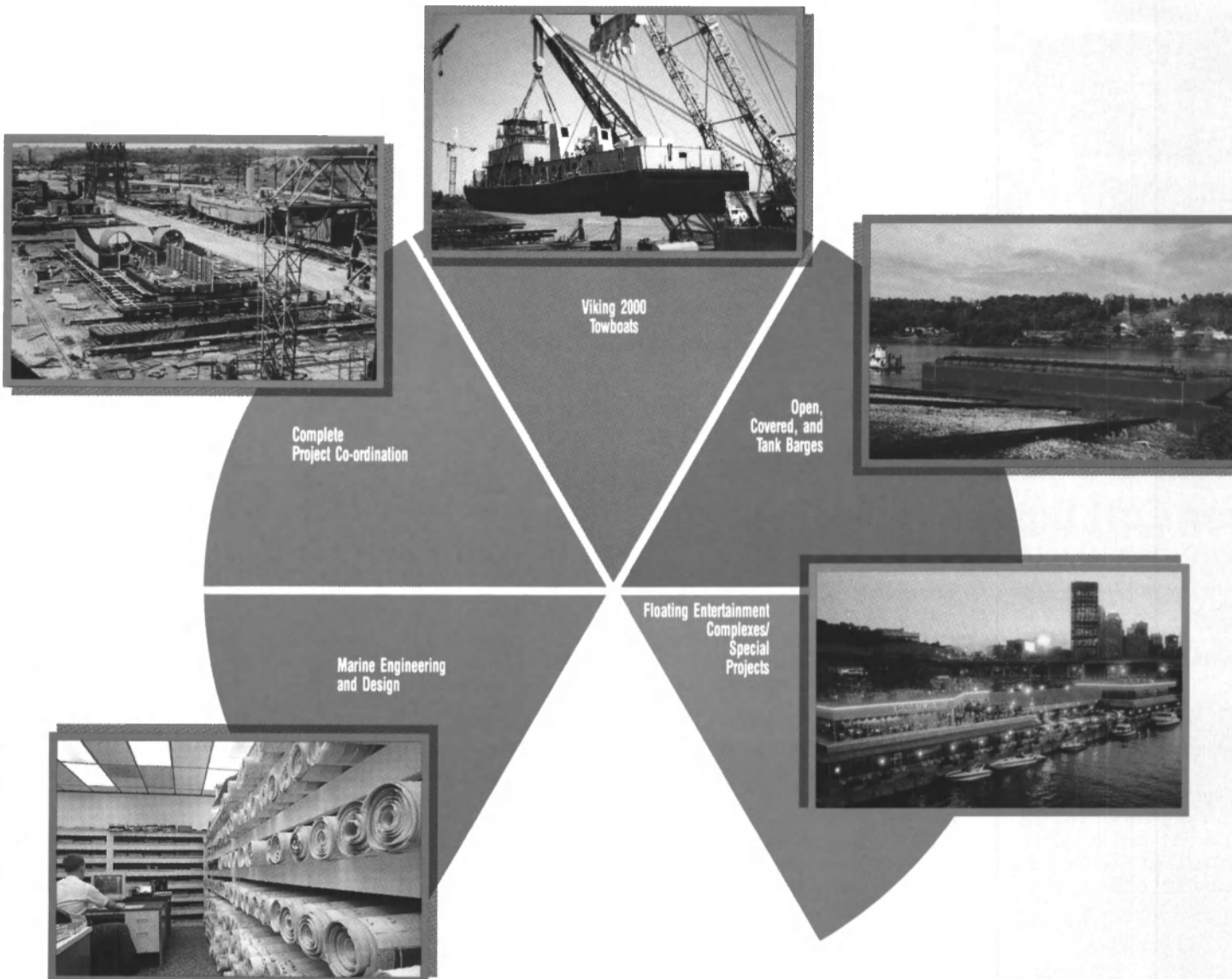
Many smaller refineries cannot afford the expected \$1,500 to \$3,000 per barrel additional investment of manufacturing reformulated gasoline and ultra-low sulfur diesel fuels.

Even larger companies that can afford the increased cost will probably choose to reduce their capacity, rather than upgrade.

Projections indicate that over the next five years, approximately 1.5 million bpd of U.S. refining capacity will be lost, significantly affecting imports.

With current imports at 2.2 million bpd, the U.S. is already the world's largest discharge destination for product tankers. Chevron predicts that total product imports during the next five years may more than double to 4.6 million bpd.

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The double-hulled Conger is the sister ship of the Wels, which was recently launched by Lindenau Werft.

Lindenau Launches Another Double-Hull Tanker For Carl Buttner Shipping

The Kiel-Friedrichsort shipyard of German shipbuilder Lindenau Werft recently christened and launched the second 23,400-dwt double-hull tanker of a newly developed design for Bremen shipping company Carl Buttner. The Godmother for the vessel was Mrs. Eva Schmidt.

The Wels is the 16th double-hull tanker built and delivered by the yard to international and domestic owners since 1976. At 555 feet in length with a capacity of 27,740 m³,

Newbuilding S 236 along with her sister, the Conger, are the largest double-hull tankers sailing under the German flag. She is classed by Germanischer Lloyd + 100 A4 E3, "Chemical Tanker Type 1"/"Oil Tanker," MC E3 AUT, INERT. Newbuilding S 236 has the highest collision resistance notation, "COLL," awarded by Germanischer Lloyd.

Based on Lindenau's newly developed Tanker Class 2000 design, the vessel has a double side shell

with reportedly a three-fold high collision resistance than a single shell tanker. Newbuilding S 236 has a class notation COLL 2 for her wing tanks and COLL 5 for her center tanks. Other recently delivered double-hull tankers built by Lindenau—Rochen I, Leng and Hummel—have also been awarded similar class notations.

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Echo sounder.....	Honeywell
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The Wels has a length between perpendiculars of 524 feet, beam of just over 80 feet, depth of 44 feet and draft of 34 feet. Her MAN B&W 6L 58/64 diesel has an output of 7,440 kw (9,997 hp) and provides a service speed of 15.5 knots.

Lindenau reports that the design of the tanker protects the cargo tanks from damage in the case of a collision with low penetration (maximum of 80 cm), such as in a harbor area. Additionally, the shipbuilder also

states that, as compared with single-hull vessels, the Tanker Class 2000 design also reduces the amount of spillage in the cases of high depth of penetration accidents because each cargo tank is smaller due to the protective location of the double shell.

Inherent in the double-hull design is savings in heating energy due to the insulating air in the side shell. The smooth inner tank walls also save cleaning time and reduce slop.

The Wels is expected to be delivered by the end of December 1992.

For additional information about the shipbuilding services of Lindenau Werft,

Circle 31 on Reader Service Card

Bisso Marine Awarded Salvage Contract

Bisso Marine Company, Inc., New Orleans, La., has been awarded the salvage contract to raise the dredge Port Arthur, owned by T.L. James and Company, Inc., Kenner, La. The dredge recently rolled on its side and sank at mile 96.1 AHP of the Mississippi River just up from Crescent City Connection bridges.

Salvage plans call for the use of Bisso Marine's DB Cappy Bisso, DB Lili Bisso, DB Cairo and DB Ajax, which have lifting capacities from 700 to 250 tons, to provide the righting up and lifting capability to refloat the dredge and deliver it to its owners.

Leon Ryder, salvage master for Bisso Marine, is in charge of the operation.

For free literature detailing the salvage services of Bisso Marine,

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ASRY Appoints 2 To New Management Positions

As part of the company's 1,500-man workforce expansion program, Arab Shipbuilding and Repair Yard (ASRY), Bahrain, is also expanding its yard management.

Michael Temple from Hong Kong United Dockyard is to join ASRY in the position of Production Manager. After sailing for Mobil Shipping, Mr. Temple worked for several international dockyards and is now the manager in charge of all electrical, steel and mechanical shops for Hong Kong United Dockyard.



Michael Temple

Also selected by ASRY to head its Estimating & Invoicing Department is **Rolf Erikson**, technical manager of Brostrom Shipping Company, Sweden.



Rolf Erikson

Mr. Erikson is a marine engineer and naval architect who first sailed with Brostrom, became a surveyor for Bureau Veritas and continued to hold management positions with several maritime companies.

By autumn 1992, ASRY's enlarged capacity will include one 500,000-dwt graving dock, one floating drydock of 826.8 feet by 147.6 feet for vessels up to 120,000 dwt, and one floating drydock of 744.7 feet by 134.5 feet for Panamax size vessels. The addition of a second graving dock is also planned.

For free information about the services available from ASRY,

Circle 16 on Reader Service Card

Dockmaster Seminar Set For Sept. 29-Oct. 2

Crandall Dry Dock Engineers, Inc., Dedham, Mass., will present

its 24th annual Dockmaster's Training Seminar from September 29 to October 2 in New Orleans.

Designed for dockmasters, marine engineers, naval architects and others involved in the docking of vessels, the seminar will cover the types of docks, ship characteristics important to drydocking, calculating block loadings, stability of ship and ship/dock system, blocking, docking plans, docking procedures, vessel handling, drydock inspection,

rating drydocks, special problems associated with docking vessels, case studies, and typical predocking calculations for U.S. Navy vessels.

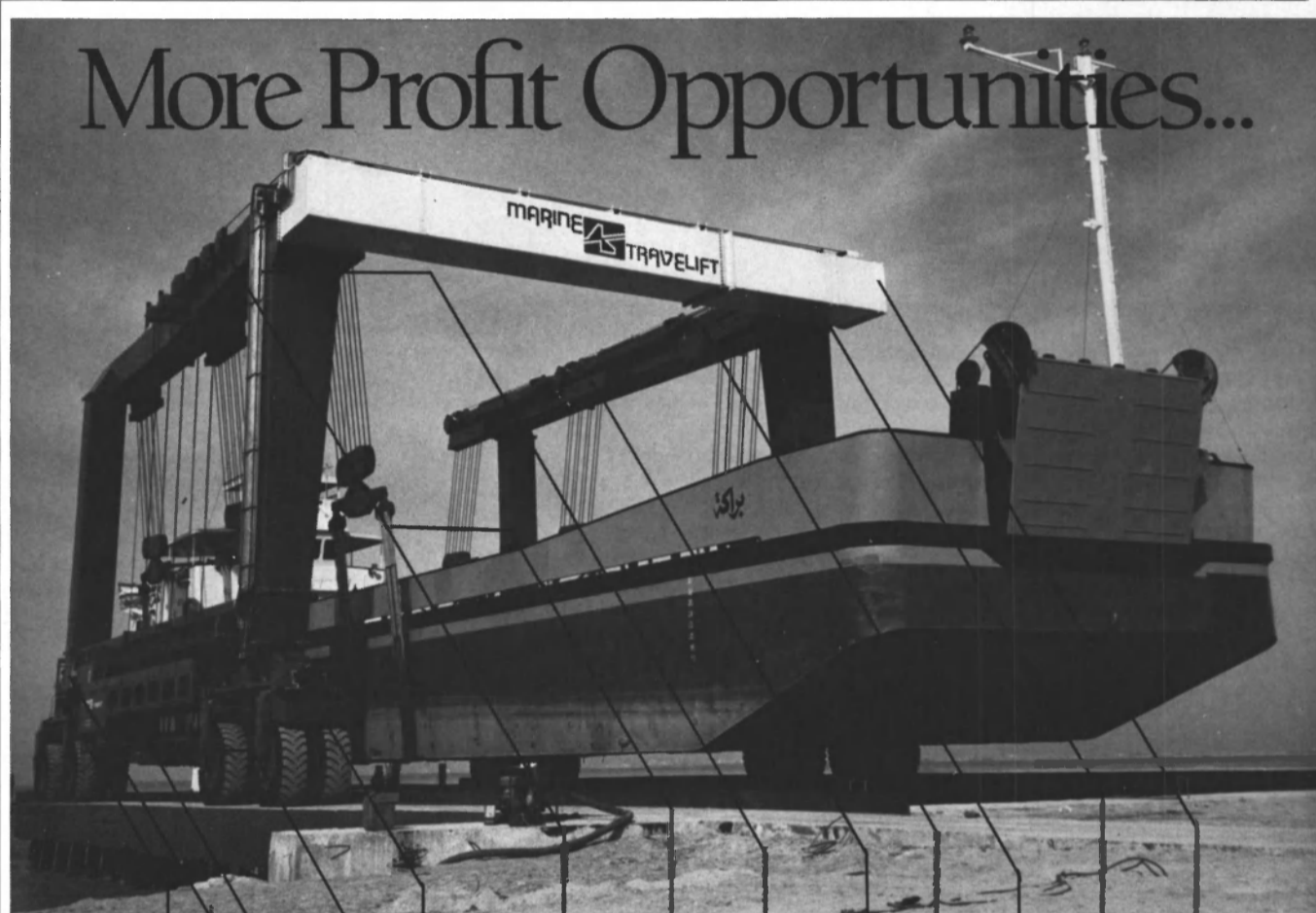
George Fait, a senior consultant, and **Robert Heger**, a senior engineer, at Crandall will present the course. Tuition for the seminar is \$500.

For further information, contact Crandall Dry Dock Engineers at (617) 329-3240; fax: (617) 329-7957.

MIB Names New Seattle Representative

The Marine Index Bureau (MIB), Ewing, N.J. has recently named **Mary French** as its Seattle representative for MIB and its affiliate, MIB Services, Inc., which maintains databases on marine personnel involved in injury and damage claims.

Ms. French has experience in insurance and human resources.



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Traffic From Latin America Surges In Southern Ports

According to port executives, increased U.S. exports to South America, Central America and the Caribbean are causing a strong surge in business for the nation's southern ports.

Traffic in the port of Miami rose 21 percent through April to the

equivalent of 128,016 20-foot containers (TEUs). This is compared to 105,881 TEUs last year.

In addition to Latin America, the Georgia Ports Authority in Savannah has also experienced an increase in trade with Northern Europe and the Middle East, according to assistant executive director **Robert W. Goethe**. As the result of three straight years of increased growth, the state legislature recently ap-

proved \$80 million for this year's portion of a planned \$319 million, 8-year expansion and modernization of Georgia's port infrastructure.

The ports of New Orleans and Houston have also experienced similar trade growth with Latin America. Several new Latin American services went on line this year in New Orleans, including a joint venture between Sea-Land Service, Inc., and Venezuelan Container Line and a

new Lykes Brothers Steamship Company service to the West Coast of South America.

Malaysian \$437 Million Shipyard Complex Planned

The Malaysian government recently announced plans to establish a \$437 million marine park in an effort to develop the nation into one of Asia's leading shipbuilding, repair and breaking centers.

To be sited in the central Malaysian state of Selangor where the country's largest port, Klang, is situated facing the Strait of Malacca, officials said the park would also house manufacturers of boat and ship components.

The country's government is hoping that rising labor costs and the site's strategic proximity to international shipping lanes will encourage Japanese and South Korean shipbuilders to relocate their operations to the new marine park.

Ship Electronics System Helps Sea-Land's Ships Avoid Bad Weather

In an effort to help its containerships avoid rough seas, Sea-Land Services, Inc., of Edison, N.J. has developed a way for ships to detect nearby weather disturbances.

The Sea-Land system superimposes a satellite weather forecast over the ship's computer system and generates a graphic display of the waters ahead of the vessel.

Erik Seither, Sea-Land's fleet manager, said: "By avoiding unstable waters, we're able to reach our destination much faster, even if we have to sail slightly off course, we still save time as long as we stay in calmer waters."

Bisso Adds Two Survey Boats For Salvage Services

New Orleans-based Bisso Marine Company, Inc.'s Diving and Salvage Division recently added two aluminum survey vessels to its fleet to enhance its underwater search and survey services, according to **Leon Ryder**, division general manager and salvage master.

The two vessels, the 30-foot Eagle Eye and 24-foot Hawk Eye, are both equipped with state-of-the-art electronics equipment including side scan sonar, Raytheon fathometers and loran positioning gear.

The underwater survey capabilities include bathymetry survey, sub-bottom profiler, and gradiometer, according to technician **Rick Carter**, who brings 15 years' underwater surveying experience to the program.

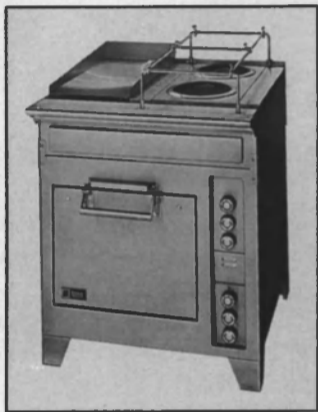
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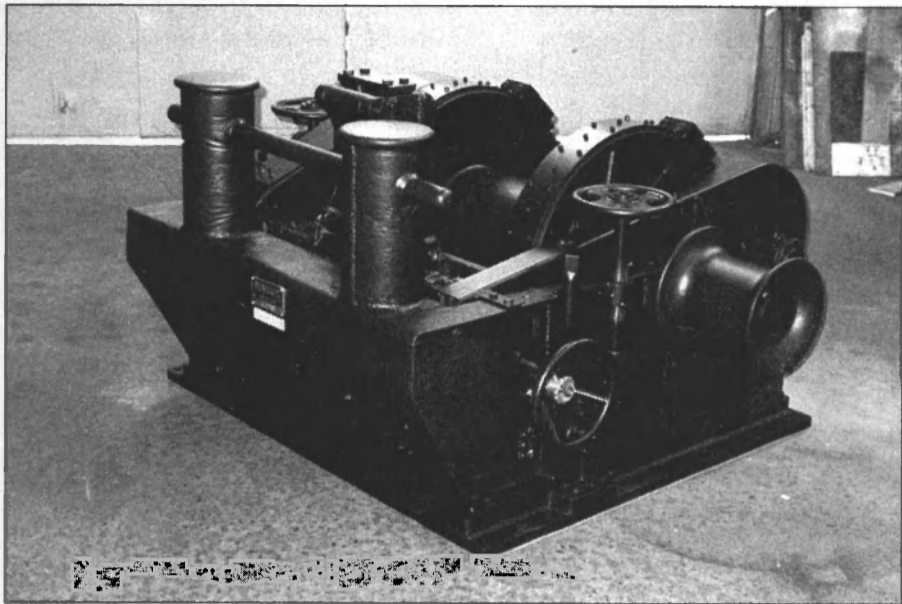


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Refurbishment of deck machinery is one cost-reducing option available to operators. Seattle-based Markey Machinery recently refurbished a model TYS-16 towing winch, S/N 5369/15815, for a Michigan operator.

Deck Machinery Refurbishment Offered By Markey Machinery Proves Cost Effective

To be competitive, vessel operators are always looking for ways to reduce their operating costs. Refurbishment of deck equipment is one

cost-effective option available to operators that revitalize existing machinery, or add new equipment to a vessel.

Recently, the Luedtke Engineering Company of Frankfort, Mich., received a refurbished 50-year-old Markey Machinery type TYS-16 towing winch, originally operated by the McNeil Island Correctional Center on the M/V Butte.

To rebuild this tow winch, the Markey Machinery Company of Seattle, Wash., installed a new main shaft assembly including winch drum and clutch, gear guards, sub-base, and added a second self-energizing drum brake to double the braking capacity. The modifications improved the performance characteristics of the winch to match the requirements of the customer, and increased the service life of the tow winch.

By choosing to acquire refurbished equipment, the M/V Kurt R. Luedtke was outfitted with a tow winch with decades of service life at half the replacement cost of a new machine, according to Markey Machinery. For over 80 years, Markey Machinery has been helping its customers minimize their operating costs through the refurbishment of existing equipment from a variety of manufacturers, or by providing new equipment with lower operating costs and longer service life.

For free literature detailing deck machinery products and services offered by Markey Machinery,

Hugh Smith Receives 2nd Korean Order For Shipyard Roll-Press

Hugh Smith (Engineering), Ltd., of Kilmarnock, Scotland, has just received the second order this year from Korea for their latest design 2000 Tonne x 17 M Shipyard Roll-Press.

The first will go to Samsung Shipbuilding and Heavy Industries. Hyundai Heavy Industries, Ulsan, will receive the second machine.

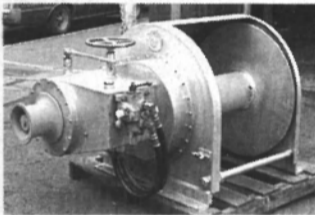
With a usable work area of 17 meters (55 feet, 8 inches) the machine is designed to accept the longer plates now becoming standard in shipyards as they reduce plate rolling, flanging and welding costs. The company has also received several orders for the Hugh Smith Ship's Frame Bender for cold bending of bulb flats, angles, tee bars and fabricated frame sections. These include two 700-tonne (771.6-short ton) machines, one each for Samsung and for Daewoo Shipbuilding & Heavy Machinery, Ltd., while a 400-tonne (440.9-short tons) machine is building for Cantieri Visentini, Venice, Italy.

To receive additional information on the Hugh Smith line of specialized shipyard tools,

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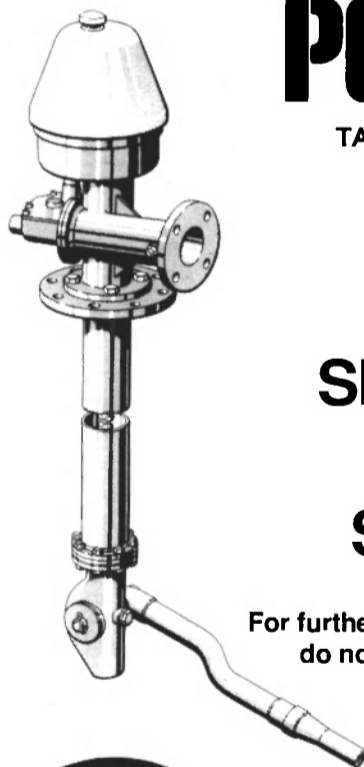
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North Atlantic Freight Rates To Rise By 10 Percent

Starting September 1st this year, U.S. exporters will be charged an average of 10 percent more for containerized shipments to Europe as North Atlantic ocean carriers raise the official freight rate for the second time this year.

With prevailing freight rates ranging between \$1,500 to over

\$4,000 for a 40-foot container, the North Atlantic conference announced that shippers of containerized cargoes will have to pay \$200 more per 40-foot container, or \$100 more on a 20-foot box, unless they are able to negotiate a discounted rate. On other cargoes, exporters will pay \$5 to \$10 more per ton, an increase of 5 to 15 percent.

These increases are in addition to an identical rate increase that

occurred on May 1st this year. When combined with several similar moves from last year, many North Atlantic shipping rate charges are 30 percent higher than two years ago.

While steamship companies defend the increases by saying they are necessary to restore their profitability, shippers argue that the increases are going too far and could dampen trade and restrain the economy.

New Marpol Rules On Marine Pollutants Spilled From Containers/Tanks

A new annex recently added to the International Convention for the Prevention of Pollution of Ships (Marpol) is designed to prevent marine pollution by dangerous substances carried in shipboard containers and portable tanks.

The International Maritime Organization (IMO) announced that the Marpol annex has been accepted by 48 countries whose merchant fleets equate to half of the world's commercial tonnage.

The new marine pollution regulations will require parties to the convention to establish detailed requirements on packing, marking, documentation, stowage and quantity limitations for dangerous cargoes carried in packaged form, such as freight containers, portable tanks or road and rail tank cars.

Wijsmuller Transport Delivers BP Riser Jacket To North Sea

The Dutch heavy-lift specialist Wijsmuller Transport B.V. is transporting British Petroleum's newly built 7,300-ton riser jacket to the North Sea, reported to be the largest jacket ever transported by a self-propelled heavy-lift vessel.

In May the jacket was loaded at the Hyundai Heavy Industries shipyard in Ulsan, South Korea, by the semi-submersible, heavy-lift vessel Mighty Servant 2. The distance of the voyage from Korea to the North Sea is 12,000 nautical miles.

The jacket was loaded by means of the skid-on method. Skid beams of 5.5 feet high and a total length of 410.1 feet were laid out on the deck of the Mighty Servant 2. For the heavy-lift vessel the skid beams, skid shoes, load-out support and seafastings meant an extra load of 1,600 tons.



BP's riser jacket loaded aboard the Mighty Servant 2.

During the 7-hour, nighttime, skid-on operation the Mighty Servant 2 was continuously ballasted in order to keep her leveled with the quay.

After its arrival this summer in the North Sea, Heeremac's crane vessel DB 102 will perform the lift-off operation and installation of the jacket.

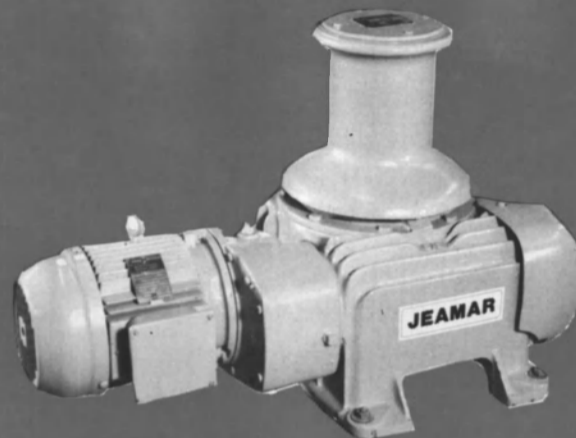
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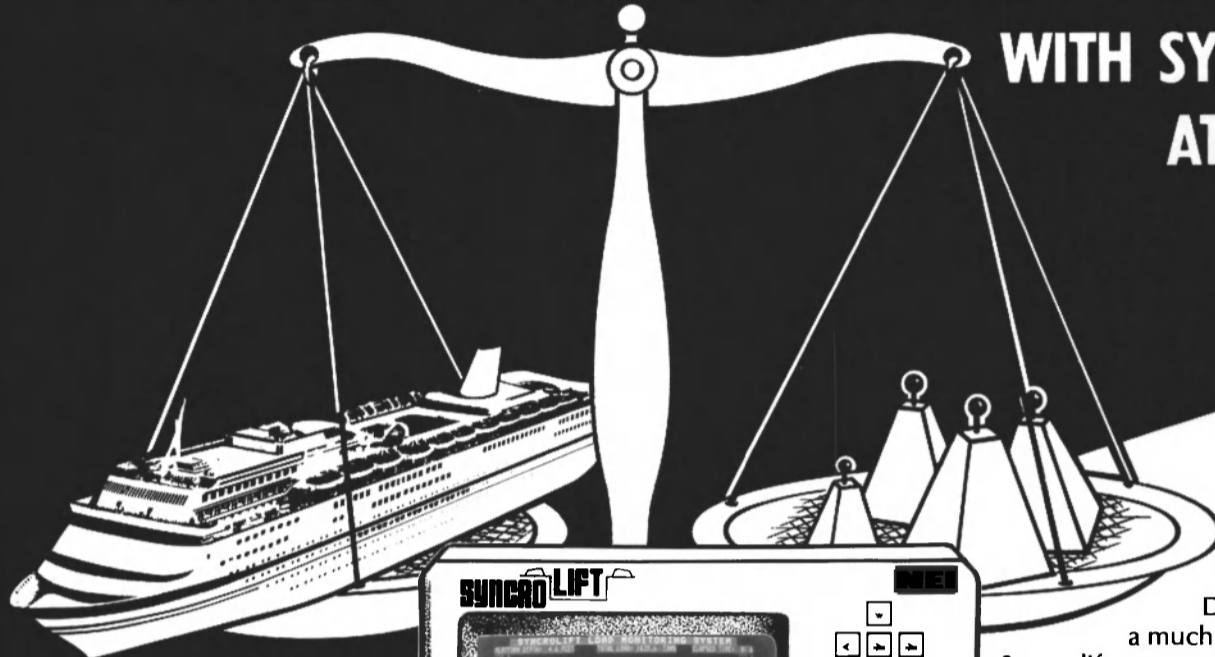
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Precast Concrete Keel Blocks Offer Advantages To Shipyards

Marine dock blocks made of precast concrete offer several major advantages to the shipbuilder as compared to other materials, according to San Diego Precast Concrete, Inc., Santee, Calif.

The Southern California producer of the precast concrete keel blocks

says that because the blocks are manufactured in a carefully controlled environment, each unit can be made to the most demanding specifications, matching the exact shape and configuration of a ship's contour. The blocks, used to support a vessel's keel during construction or repair, are made to meet the requirements of the U.S. Navy, San Diego Precast Concrete, Inc.'s largest customer. San Diego Precast Concrete sup-

plies its marine dock blocks to shipyards along the Pacific Coast, Hawaii, and the Gulf Coast. The heavily reinforced blocks, are stacked and cribbed inside the drydock to match the exact shape of a ship's hull. The blocks are made to handle any type and size ship.

For free literature detailing precast concrete blocks from San Diego Precast Concrete, Inc.,

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New Oil Spill Rules Proposed By Coast Guard

The U.S. Coast Guard has recently proposed oil spill regulations that would require all tankers in U.S. waters to develop oil spill response plans and have them in place by the middle of 1993, as required by the Oil Pollution Act of 1990.

Coast Guard-approved response plans must encompass every possible oil spill contingency, including a "worst-case" spill in which a tanker's entire cargo is lost during adverse weather conditions.

In Prince William Sound, Alaska, owners or operators would have to achieve a greater margin of safety. They would have to provide escort vessels with skimming capability and establish, man, equip, train and exercise an oil spill removal organization.

The new regulations would prohibit any vessel from handling, storing or transporting oil after February 18, 1993, unless the owner or operator has submitted a response plan to the Coast Guard for approval. Ships must be operating in compliance with the approved plan by August 18, 1993. Vessels would be allowed to operate for two years, pending approval of their plans, if the owners or operators had, under contract, cleanup personnel and equipment adequate to handle a worst-case spill.

House Approves 1993 CG Budget

The U.S. Coast Guard's \$3.6 billion budget request for fiscal year 1993, which begins on October 1st, was recently approved by the House of Representatives.

However, Representative **W.J. Tauzin** (D-La.), chairman of the subcommittee on Coast Guard and Navigation, reported that congressional appropriations committees are planning an \$87 million cut in the Coast Guard's \$2.6 billion operating budget and an additional \$20 million cut in its acquisition and construction budget.

In the event that the cuts proceed, "you will see decommissioning of ships, you will see closure of search and rescue stations and air stations. You will see closure and consolidation of marine safety offices. And you will see major delays in the implementation of the repositioning of equipment and supplies to combat oil spills," said Rep. **Tauzin**.

The U.S. Maritime Administration's (MarAd) 1993 budget request of 276.8 million was approved by the House Merchant Marine and Fisheries Committee and now awaits the results of federal budget appropriations.

While most of MarAd's budget will go to its Ready Reserve Force of inactive merchant ships, \$38 million is earmarked for the department's ship-construction loan-guarantee program.

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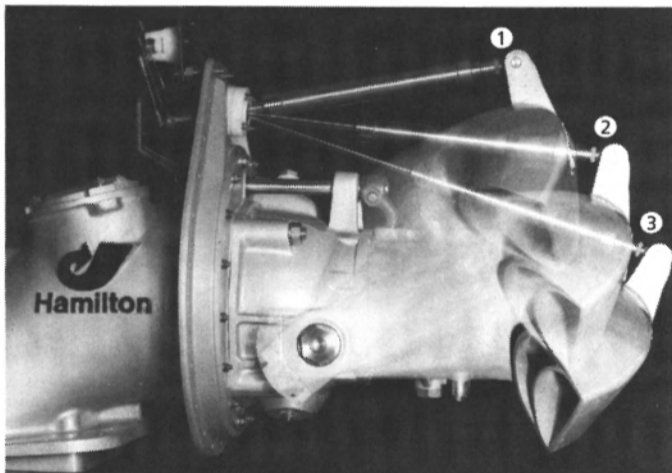


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Halliday Launches Into Aluminum/Steel Fabrication Maritime Market

Known for specialized aluminum and steel fabrication, Halliday Products, Inc., of Orlando, Fla., is broadening its market to include the maritime industry.

Halliday's product line, engi-

neered to perform in the corrosive wastewater treatment environment, will also withstand the equally tough demands of marine operations. The Type 316 stainless hand winch assemblies and portable hoists are ideal for marine and non-sparking applications.

While many company products, such as its all-aluminum ladders, will easily cross over into the maritime market, Halliday looks to utilize its versatile metal fabrication capabili-

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Halliday Products operates

from a 60,000-square foot facility in central Florida, which houses manufacturing, warehousing and corporate offices. The company ships daily by motor freight and UPS to all 50 states, Puerto Rico, the Caribbean and Canada.

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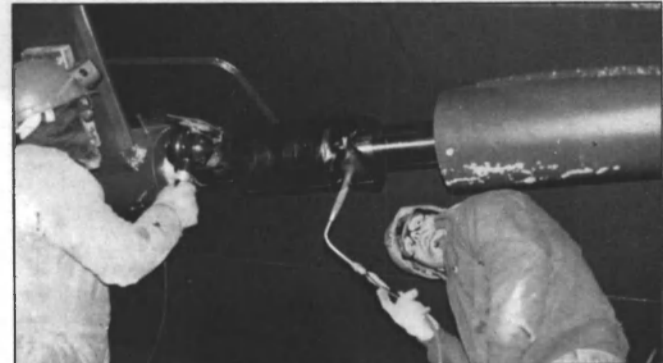
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Oceaneering Awarded Major Hess ROV Contract

Oceaneering International Services, Ltd., of Houston, Texas, was recently awarded a contract by Amerada Hess, Ltd., to provide remotely operated vehicle (ROV) support services for all of their rigs operating in the North Sea.

Oceaneering has operated its cost-effective and reliable HYDRA[®] work system for ROVs aboard Hess rigs for several years, with systems currently operating on the High Seas Driller and Glomar Arctic 1.

In addition to remaining on these two rigs, the new contract calls for installation of a further system on the Sedco 707 in the near future.

Under the terms of the contract, Oceaneering has agreed to provide up to two additional vehicles to meet future similar requirements that Amerada Hess Limited expects to have over the next 12 months.

For free literature about the services available from Oceaneering International, Inc.,

Circle 19 on Reader Service Card

Sembawang Wins Repair Contract For U.S. Destroyer

The contract to carry out repairs to the U.S.S. Ingersoll, damaged in a collision with a Singapore-registered tanker on June 20th, has been awarded to Sembawang Shipyard, Singapore.

It was reported that plans to bring the ship back to the U.S. for repairs had received some consideration, but had evidently been ruled out.

The U.S.S. Ingersoll, a Spruance-class destroyer, received a 100-foot gash along its starboard bow and suffered some flooding after colliding in the Straits of Malacca with the Matsumi Maru #7. The tanker continued to the Malaysian port of Penang under its own power after reportedly leaving its anchor embedded in the destroyer's side.

The U.S.S. Ingersoll, homeported in Pearl Harbor, Hawaii, was originally on its way to Singapore after having served a tour of duty in the Persian Gulf. Navy officials will be arriving in Singapore to begin an investigation into the accident.

A member of Sembawang Group, Sembawang Shipyard will carry out extensive repairs above and below the U.S.S. Ingersoll's waterline, including: repairs to the steel hull, deck plating, internal bulkheads and web frames. New piping, cable and insulation will also have to be installed.

Vietnam Approves Continued Foreign Drilling

According to an official of the state oil company, Petrovietnam, the government of Vietnam has agreed to let British Gas, of the U.K., Japan's Mitsubishi Corporation and the Astra Group of Indonesia explore four additional oil blocks off the country's southern coast.

These agreements mean that Vietnam has allocated nine of the 10 blocks, located southeast of the town of Vung Tau, offered to foreign bidders on a production-sharing basis with Petrovietnam last year. Bidding on the remaining oil block is currently underway.

The agreements must still be formalized in production-sharing contracts, a process which in the past has taken between five to six months from the date of the initial accord.

Bill Proposes Establishing U.S. Ship-Tracking System

Representative **Robert G. Torricelli** (D-N.J.) recently introduced a bill to Congress that would require ship operators to use sophisticated traffic-control equipment, such as global positioning satellite systems, to track ship movements.

"At a minimum, technology should be in place that would iden-

tify the precise location of any given vessel in a port," said Rep. **Torricelli**.

According to the Congressman, the technology already exists to establish a vessel-tracking system "that is as accurate as the United States air traffic-control system and that is the goal of this legislation."

The proposed bill would require ships to use navigation equipment that meets or exceeds the accuracy of global-positioning systems.

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Siemens supplied the electrical system including propulsion, power plant and automation for the mid-life modernization of the Canadian Coast Guard Icebreaker "Louis S. St. Laurent".

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BUYERS DIRECTORY

This directory section is an editorial feature published in every issue for the convenience of the readers of MARITIME REPORTER/Engineering News. A quick-reference readers' guide, it includes the names and addresses of the world's leading manufacturers and suppliers of all types of marine machinery, equipment, supplies and services. A listing is provided, at no cost for one year in all issues, only to companies with continuing advertising programs in this publication, whether an advertisement appears in every issue or not. Because it is an editorial service, unpaid and not part of the advertisers contract, MR/EN assumes no responsibility for errors. If you are interested in having your company listed in this Buyers Directory Section, contact John C. O'Malley at (212) 477-6700.

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Bailey Group, 2323 Randolph Ave., Avenel, NJ 07001
Carrier Transicold, P.O. Box 4805, Syracuse, NY 13221
Maritime Services Corp., 3457 Guignard Drive, Hood River, OR 97031
Stal Refrigeration AB, Butangsgatan 16, S-601 87 Norrköping, SWEDEN

BALLAST

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Genstar Stone Products, Executive Plaza IV, Hunt Valley, MD 21031
Mineral Research & Recovery Inc., P.O. Box 986, Sonoita, AZ 85637

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Maxon, South Boundary Street, P.O. Box 69, Tell City, IN 47586
Zidell Marine Corp., 3121 SW Moody Ave., Portland, OR 97201

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Syntech Inc., FRP div. 700 Terrace Lane, Paducah, KY 42003

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Diversified Marine Brokerage, 1201 Northern Blvd., Manhasset, NY 11030
Jack Faulkner, 2419 Caddy Lane, P.O. Box 371, Flossmoor IL 60422
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Autronica Marine A/S, Drammensveien 126, N-0277 Oslo 2, NORWAY
Henschel, Inc., 9 Hoyt Drive, Newburyport MA 01950
IMO Industries, Gems Sensors Division, One Cowles Rd., Plainville CT 06062
Lyngso-Valmet Marine A/S, P.O. Box 130, N-3430 Spikkestad, NORWAY
MMC International, 60 Inip Dr, Inwood NY 11696
Marine Electric RPD, Inc., 50 Carol St., P.O. Box 1135, Clifton, NJ 07014-1135
Norcontrol A/S, P.O. Box 1024, N-3191 Horten, NORWAY
Robertson Marine Systems, 3000 Kingman St., Suite 207, Metairie, LA 70006
Row Technology, P.O. Box 265, Littlestown, PA 17340
Siemens Energy & Automation, Inc., Systems Div., Marine Systems No. America (A23N), 100 Technology Drive, Alpharetta, GA 30202
Teleflex Inc., 771 First Ave., King of Prussia, PA 19406

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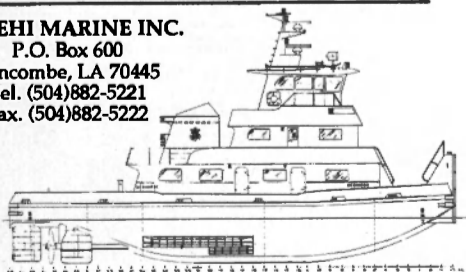
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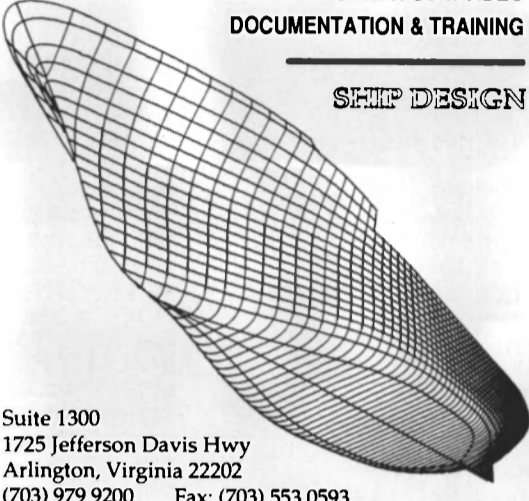
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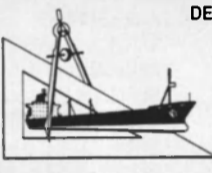
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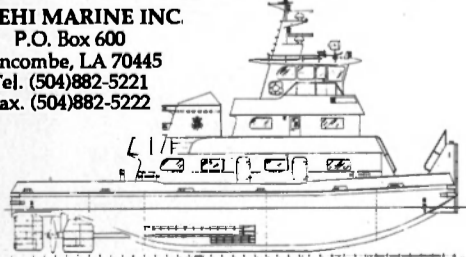
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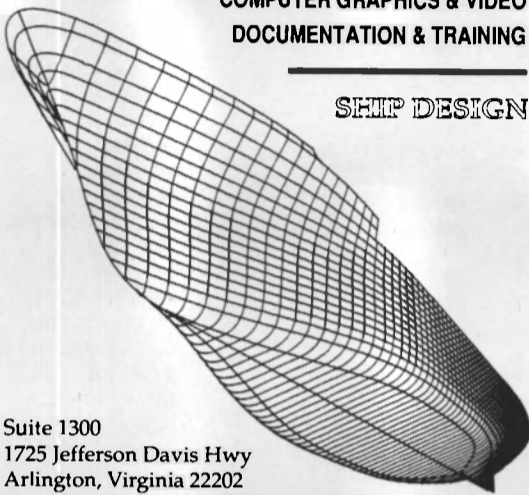
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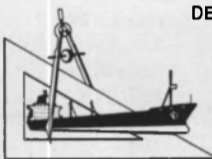
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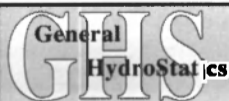
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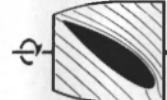
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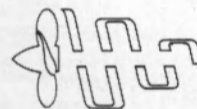
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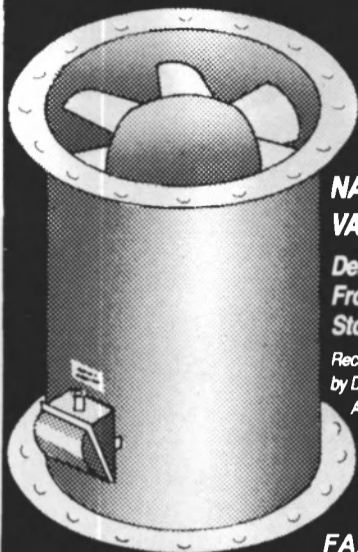
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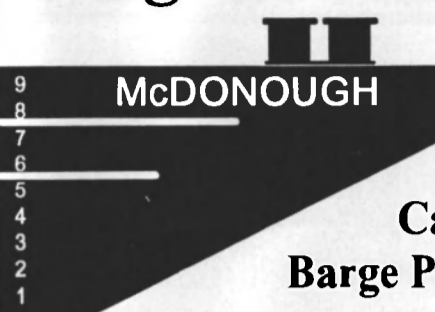
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Atlantic Aqua Marine Building Powered Barge For Clean Casco

Atlantic Aqua Marine, Inc., of Portland, Maine, has a 46-foot by 20-foot multi-task powered barge under construction for Portland-based Clean Casco Bay, Inc. Clean Casco Bay is a non-profit oil spill response cooperative of local oil terminal operators.

Atlantic Aqua Marine has launched 18 similar vessels, known as Aqua Trucks, during the past 22 months. Available in outboards, diesel and jet-drive versions, Aqua Trucks are offered in sizes from 26 to over 100 feet.



Powered barge built by Atlantic Aqua Marine.

While Clean Casco Bay will utilize the vessel primarily for oil spill response, the Aqua Trucks are designed for versatility that makes them productive every day for towing, salvage, marine construction, diving, fire fighting and dozens of routine harbor jobs. The vessels are beachable and offer three to five times the deck space of traditional work vessels. The Clean Casco Bay vessel has standard Caterpillar 3208 power and is scheduled for launch this month.

To receive free literature about Atlantic Aqua Marine's powered barge or other services and facilities,

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Renk Tacke Supplies RCF Generator Gear Units To Six Bulk Ships

The Harland and Wolff shipyard, Belfast, Ireland, recently placed an order with Augsburg, Germany-based Renk Tacke GmbH for six Renk Constant Frequency (RCF) gear units for current generation aboard six Capesize bulk carriers.

The gear units will be directly flanged to the front of two-stroke, 15,200-kW Man B&W type 6 S70MC engines.

The first of the six vessels should be in service in 1993.

According to Renk Tacke, some of the features of the RCF system are: high efficiency in the full and partial load range, minor installation volume, high reliability and little maintenance and low procurement and maintenance costs.

August, 1992

Since 1985, over 120 Renk Tacke RCF generator gear units have been put into operation, with some having been attached to vertically mounted generators with an individual power rating of 1,800 kW.

For additional information about the Renk Tacke RCF generator gear units and other product line,

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BF Goodrich To Market Dock Fender Facings Made Of UHMW-PE Solidur

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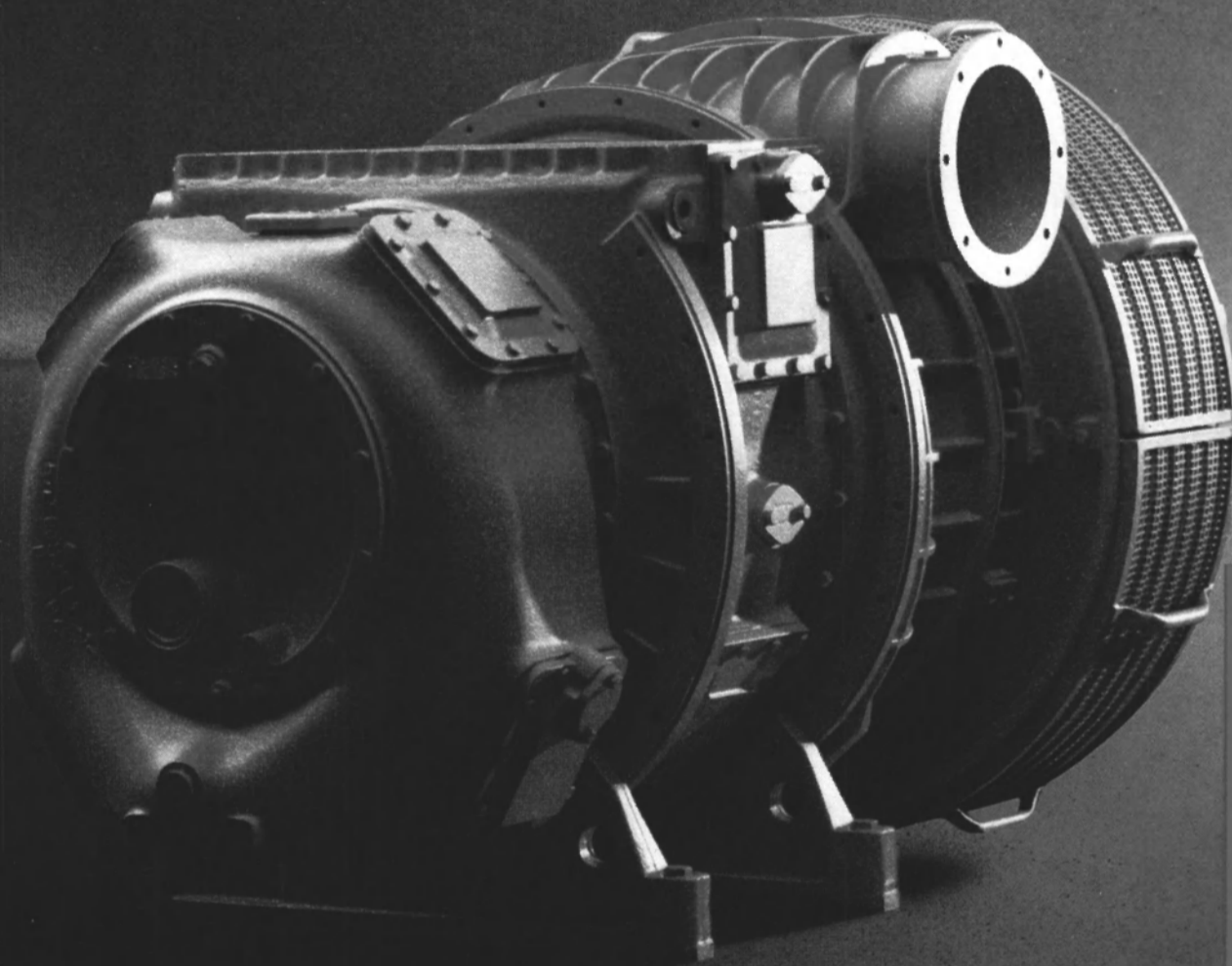
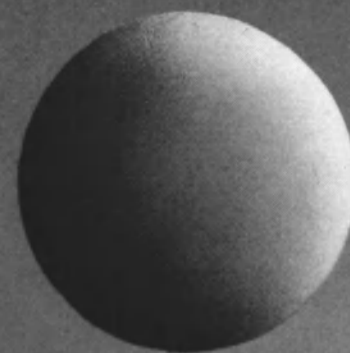
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