

MARITIME REPORTER AND ENGINEERING NEWS



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OCTOBER 1991 ISSUE

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CAT Marine Power

ON THE COVER

The tuna purse seiner Shilla Pioneer, built by Campbell Industries for export to a South Korean owner. Photo: Jim Boyd.

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DTRC Requests Proposals For Material Handling Systems

The David Taylor Research Center (DTRC) Mobile Support Systems Program Office is interested in receiving proposals on research and exploratory development of material handling, strikedown and stowage (MHS&S) systems for future design naval combatants. This broad agency announcement (BAA) addresses conceptual intraship MHS&S systems for combatants and aircraft carriers. Potential sources are encouraged to submit proposals outlining proposed research and development activities.

Proposals should be submitted to the David Taylor Research Center, Annapolis Laboratory, Code 1235/ Joe Mackes, Annapolis, Md. 21402-5067. All proposals should be marked as a response to this BAA with the BAA number N61533-BAA-91-05. Technical questions should be directed to Mr. Mackes at (301) 267-2261.

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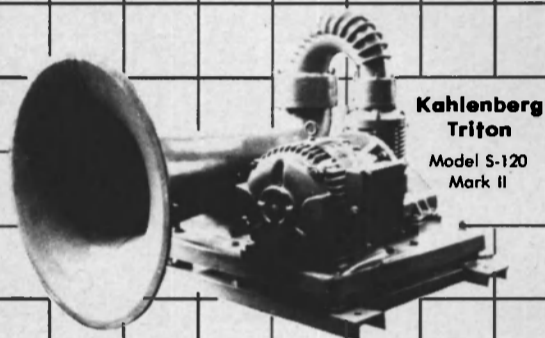
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Model KB-20



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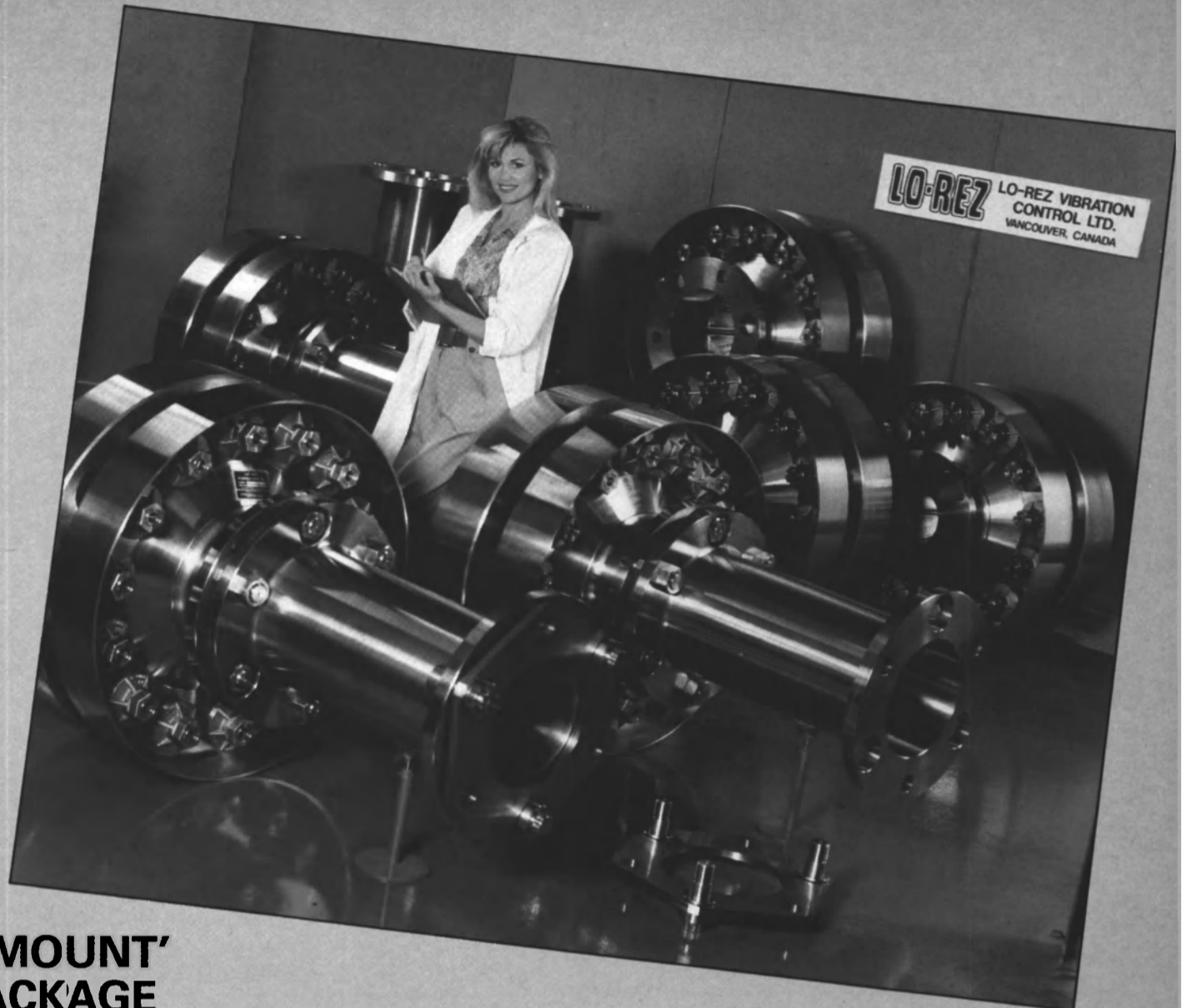
LO-REZ

Shown are six 38RT/HLF flexible coupling assemblies as used on naval propulsion systems.

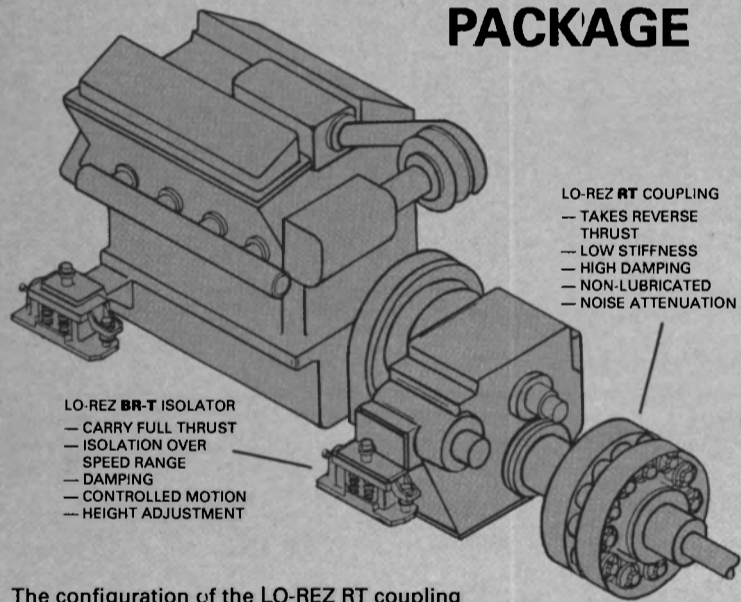
The 38RT couplings, which utilize elastomer cylinders pre-loaded in compression, have three dimensional lateral and torsional flexibility. They provide a high degree of noise attenuation, there being no metal-to-metal contact.

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T.W. Spaetgens, P.Eng., Pres.



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Malcolm Wall, P.Eng., TSRV Project Manager, National Defence Hdqrs., Ottawa

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Campbell Yard Launches Caterpillar-Powered Tuna Purse Seiner

Campbell Shipyard recently launched the first Super Pacific Class tuna seiner for Italy, the Rio Mare. This is the eighth consecutive 1,500-ton-capacity tuna purse seiner built for export, making Campbell one of the leading U.S.

exporting shipbuilders.

The Rio Mare's complete Marco deck machinery system features the WS455 purse seine winch, which provides greater line pull than previous models in its category. Also included is Marco's rail-mounted hydraulic net roller, which helps speed up "drying up" in net before and during brailing.

Electronics include Furuno's newest FR-1800 "S" Band ARPA radar, CSH-20 sonar, GP-500 GPS satel-

lite navigator, and FS-500 SSB, as well as the Felcom 5B satcom.

Power is provided by the latest version of Caterpillar's Model 3612 diesel driving a five-bladed Bird-Johnson propeller through a Falk reduction/reversing gear at a shaft speed of 180 rpm.

The Rio Mare is 157 feet long, with a beam of 44 feet 9 inches and depth of 26 feet 5.5 inches. Her refrigerated fish capacity is 1,548 short tons. Trial speed confirmed by



The Rio Mare, which is scheduled to be delivered this month, is a sister ship to the highly successful Via Avenir, which has proven to be one of the leading producers in the French tuna fleet in the Atlantic since her delivery last fall.

her sister ship is 17.6 knots at 2,850 tons displacement and 3,800 shp.

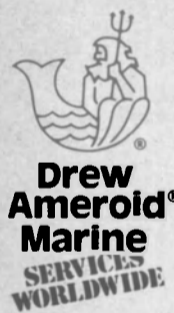
For additional information on the Rio Mare or Campbell's shipbuilding and repair services,

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Litton Awarded \$6 Million By Navy For Production Of Direction-Finding Systems

Litton's Amecom division, Washington, D.C., has been awarded a \$6 million U.S. Navy contract for continued production of AN/BLD-1 direction-finding systems for SSN-688 class submarines. The new contract provides for two systems, spares, support equipment, data and engineering services. Contracts now total \$137 million with 31 systems delivered.

The AN/BLD-1 provides passive intercept and precision direction-finding information about airborne, land-based and shipboard emitters which increases the submarine's capability to accomplish its varied missions. In addition to application on the 688 class, the system is presently being utilized as a part of the AN/WLQ-4 (V) 1 Electronic Warfare System for installation in the Navy's newest attack submarine, the Seawolf (SSN-21) class. The first Seawolf is presently under construction.

Production is being performed at Amecom's College Park, Md., facility.

Amecom is a unit of Litton's Electronic Warfare Systems group. The division designs, develops and manufactures communications and electronic warfare systems for the Department of Defense and other Federal Government agencies.

Litton is a technology-based company providing resource exploration services, industrial automation systems and advanced electronic and defense systems for U.S. and world markets.

For more information and free literature,

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Maritime Reporter/Engineering News

Singmarine Industries Wins \$7.4 Million Newbuilding Contracts

Singmarine Industries Limited (Singmarine) recently won three newbuilding contracts worth about \$7.5 million, through its subsidiaries Singmarine Dockyard and Aluminum Craft (88).

These contracts include a 27.5-meter (about 90 feet) aluminum crewboat and two 15-meter (about 49 feet) patrol boats won by Aluminum Craft as well as a 3,500-dwt ore carrier won by Singmarine Dockyard from repeat customers.

The crewboat, worth about \$1.1 million, was awarded by Syarikat Borcos Shipping Sdn Bhd (Borcos Shipping) in early July. It is the fourth such order awarded by Borcos Shipping since 1989. The first three vessels were delivered on schedule.

Like the previous vessels, the crewboat will have an air-conditioned passenger saloon and is capable of accommodating 53 passengers and six crew. It will be used to ferry crew and equipment to offshore platforms and construction barges.

Aluminum Craft has also won a \$1.1 million contract to build two patrol boats earlier this year for the Customs and Excise Department of Singapore. The vessels are expected to be completed by the third quarter of 1991.

The third newbuilding contract, worth about \$5.2 million, was won by Singmarine Dockyard, the shipbuilding/repair division of Singmarine. This contract to build an ore carrier was awarded by repeat customer Freeport Indonesia, Incorporated, which has previously commissioned Singmarine Dockyard to build six oil barges and two tugboats.

For free literature on the facilities and capabilities of Singmarine, **Circle 16 on Reader Service Card**

Mast-Raising Ceremony For Twin-Hull Cruise Ship Held At Rauma Yards

The mast-raising ceremony for the world's first twin-hull cruise ship was held recently at Rauma shipyard, Rauma, Finland. Rauma Yards received the order in May 1990 from the Finnish owners Diamond Cruise Ltd.

On completion, the vessel will have taken about two years to design and build. As this is the first vessel of its kind, construction was preceded by a detailed strength analysis of the hull and extensive sea-keeping, propulsion and wind tests using a small-scale model.

Construction has proceeded on schedule. All hull sections have been lifted and welded into place, and the vessel has now taken on its final appearance. Outfitting is in full swing, with public areas such as restaurants at present being furnished and decorated.

Assembly of the passenger cabins has also started. Altogether, the

ship will have 177 two-berth suites, most with their own balcony. Each cabin covers 23 square meters and is furnished to the highest hotel standard.

The twin-hull cruise ship has a length of 129.5 meters (about 424.8 feet) and a breadth of 32 meters (105 feet)

For free literature detailing the facilities and capabilities of Rauma Yards,

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Japanese Warn Of Oversupply Of VLCCs

With the latest influx of orders for Very Large Crude Carriers (VLCCs), Japanese analysts are warning that there may be a short-term oversupply in this market.

According to a report by the Japanese Maritime Research Institute, there should be an oversupply of VLCCs by 1993, but it should be

eased by demand in the remainder of the decade.

Orders have resumed at a brisk pace following the end of hostilities in the Persian Gulf. The latest figures indicate that there is a backlog of 110 tankers aggregating about 30 million dwt at world shipyards. The report says that of these tankers, 40 VLCCs will be completed in 1993 alone.

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

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\$17 Million Navy Contract Awarded For LCAC Spares Procurement

A multiyear contract totaling nearly \$17 million has been awarded by the U.S. Navy for the procurement of spare parts and special test equipment for the Landing Craft, Air Cushion (LCAC).

The program will be managed in Panama City, Fla., by a team from

Piquini Management Corporation (PMC) of Anchorage, Alaska, and Textron Marine Systems (TMS) of New Orleans, La., the developer of the LCAC.

Textron Marine Systems has an extensive training maintenance and spare parts facility at Panama City to meet Navy technical and support needs. In addition, TMS has a Component Assembly and Test Operations facility on line at Panama City that specializes in military specification fabrication and repair of elec-

tronic printed circuit card modules, enclosures, and keyboard assemblies for various contracts. With this new award, warehouse and office facility construction will begin immediately in Panama City.

The LCACs can rapidly carry troops, weapons and equipment from support ships over the horizon to 70 percent of the world's beaches. Only 17 percent of coastlines are currently accessible by conventional landing craft. The LCAC is the first significant technical improvement in

waterborne landing craft since World War II and is considered a cornerstone in modernizing U.S. Navy/Marine amphibious warfare capabilities.

Asmar Launches New Design Of Patrol And Rescue Ship

Asmar Shipbuilding and Docking Company of Chile, recently launched the first of a new "high technology" design of patrol and rescue vessel, the Asmar 1160, which has the capacity to rescue 32 people.

The 41.5-foot-long by 12.79-foot-breadth vessel, which because of its design and weight distribution automatically rights itself if it capsizes, will be delivered to its owners, the General Direction of the Maritime Territory and Merchant Marine, and operate out of Hanga-Piko Harbor at Eastern Island.

The vessel's propulsion system is unusual—two Volvo Penta engines of 306 hp and two Hamilton 291 water jets. This system allows shipwrecked personnel to get in close to the ship without being sucked under by the engines which have no shaft.

Classed by Lloyd's Register of Shipping, the ship has a crew capacity of four. Twelve of the 32 the ship is capable of rescuing would be accommodated in the wheelhouse with the rest on deck.

The ship, which is constructed in glass fiber reinforced polyester, has an inflatable bulwark of 60 cms diameter for protection. This allows men to get onboard without injury, protects the hull from damage from other vessels and adds to her stability.

For free literature detailing the facilities and capabilities of Asmar Shipbuilding and Docking Company,

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Ingram Seeks MarAd Loan To Construct 103 New Barges

A Maritime Administration loan guarantee to aid in financing construction of 44 open hopper barges, four rake barges, 40 box barges and 15 double-hull chemical tank barges is being sought by Ingram Barge Co. of Nashville.

If the application under Title XI of the Federal Ship Financing program is approved, MarAd said the 22-year loan guarantee will cover about \$12.5 million of the total estimated construction cost of \$16.6 million.

The barges, to be used in U.S. domestic commerce, have been or will be built by Maxon Marine Inc., Tell City, Ind.; Trinity Marine, Gulfport, Miss.; and Jeffboat Inc., Jeffersonville, Ind.

Maritime Reporter/Engineering News

Kawasaki To Launch Marketing Campaign For High-Speed Hydrofoils

One of Japan's leading shipbuilders, Kawasaki Heavy Industries, is ready to launch a marketing campaign for high-speed hydrofoils in key cities throughout the world. Plans also include mobilizing a worldwide network of sales offices.

The move by Kawasaki follows Boeing's withdrawal from the hydrofoil business.

Kawasaki secured a license for construction of hydrofoils under a contract with Boeing in 1987. After completing the first hydrofoil under the contract in 1987, it has so far completed 10 vessels in Japan.

Under the Boeing contract, Kawasaki's marketing-sales territories were limited to Japan, the Far East, Southeast Asia and Australia-New Zealand. But since Boeing suspended the construction of the Jetfoil in the U.S., Kawasaki has expanded its marketing and sales throughout the world.

In Japan, the company is encouraged by the Ministry of Transport's lifting of the ban on the operation of hydrofoils at night.

Due to the lack of vibration and rolling-and-pitching while navigating in rough seas, high-speed services have been popular among Japanese travelers.

Kawasaki is confident that, since a hydrofoil is priced at about \$22 million in Japan, it can sell them to medium- and small-sized operators in Japan and abroad.

MMA To Hold 2nd Annual HM&E Conference November 19-20

The Marine Machinery Association (MMA) will hold its second annual HM&E Conference at the Hyatt Regency Hotel Crystal City in Arlington, Va., on Tuesday, November 19, and Wednesday, November 20, 1991.

At this conference for the manufacturers of the Navy's Hull, Mechanical and Electrical Equipment, MMA and the Naval Sea Systems Command will discuss new developments and strategies, giving manufacturers an opportunity to gain a thorough knowledge of the current changes in the Navy and its industrial base.

Recognizing the need for the Navy and its HM&E manufacturers to meet the demands of the future, NAVSEA and MMA plan sessions on: shipbuilding, overhaul and repair; affordability; environmental matters; fasteners; Mil Spec vs. commercial specifications; advanced technologies; aftermarket, parts and repairs; rights in data regulations; emerging shipboard technologies; and quality assurance.

Each day there will be a reception and luncheon with speakers from Capitol Hill and the Navy. Last year's conference attracted over 200 representatives from the industry and government.

Sequip Acquires Control Of Verolme Do Brasil

The Brazilian group Sequip recently completed the purchase of the majority of the voting shares of Normak S.A., the holding company of Brazilian shipbuilder and repairer Verolme do Brasil.

Sequip already owns Emaq-Engenharia e Maquinas S.A. of Rio de Janeiro, which was purchased in

1986.

Both shipyards will be managed by a team led by Nobuo Oguri as president and chief operating officer, Manuel Goncalves as vice president, and Ronaldo Peryles as financial director. This same management team oversaw the recovery of Emaq from liquidation and hopes to repeat its success with Verolme.

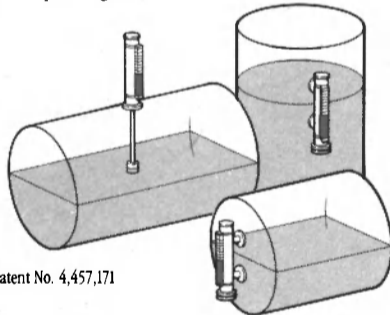
At present, the two shipyards represent 40 percent of Brazilian shipbuilding capacity, with the capabil-

ity to construct almost any type vessel. Emaq has orders for two 33,100-dwt RO/RO-LO/LO ships for Brazilian owner Transroll and three 36,000-dwt product carriers for Brazilian state-owned oil company Petrobras. Verolme has orders for two Brazilian Navy corvettes, 5 product carriers of different capacities for Petrobras and four 67,500-dwt self-unloading bulk carriers for the CSL Group. In all, the order books of the two yards total over \$600 million.

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Patent No. 4,457,171



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LIVE AND LET LIVE

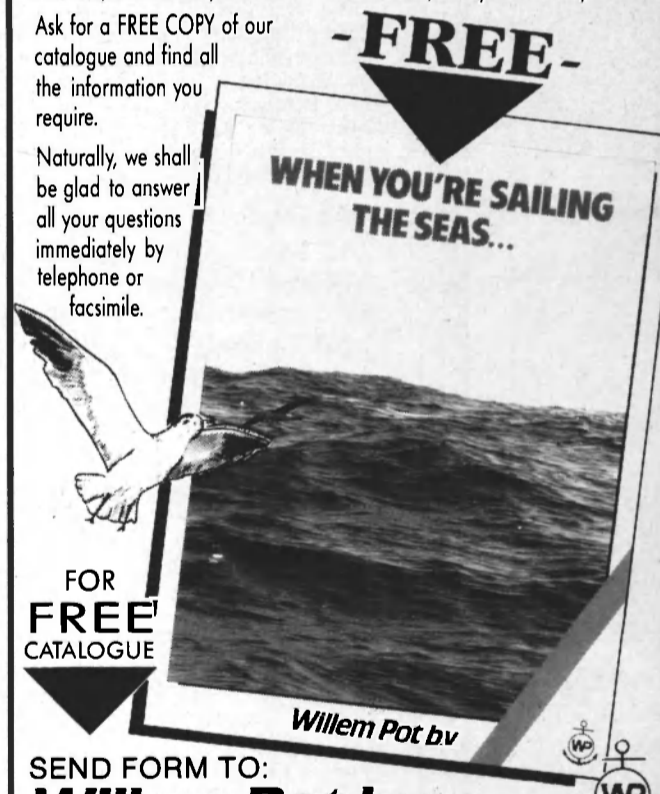
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Circle 275 on Reader Service Card

Boats & Barges

Textron Lycoming-Powered Seiner Delivered By Kodiak Marine Achieves Speeds Over 50 Knots

Kodiak Marine Construction of Sequim, Wash., recently delivered what is thought to be the world's fastest fishing boat. The 58-foot-long, 3,000-hp jet-driven seiner, named Order of Magnitude, is to be used for the Alaskan herring and salmon fisheries.

The vessel is powered by a single Textron Lycoming EF35 gas turbine main engine, thought to be a first for fishing boats. The engine has powered the Order of Magnitude to over 50 knots.

The Alaskan herring and salmon fisheries are strictly controlled, with some opening periods lasting just hours, so builder, owner/skipper **Ray Wadsworth**, who is also presi-

dent of Kodiak Marine, went for extra speed to get to newly opened fishing areas well ahead of the competition. He also hopes to make the most of these grounds, as the Order of Magnitude's overall length is the maximum permitted there.

In addition to her 3,000-hp main engine, the boat has a 420-hp Cummins KT diesel coupled to the gearbox in a CODAG arrangement to allow either engine to drive an American Hydrojet water jet unit. The Cummins engine alone powers to 12 knots.

Mr. **Wadsworth** chose the waterjet system to achieve efficiency at high and low speeds, and the American Hydrojet system is the



Skipper/owner **Ray Wadsworth's** 58-foot, 3,000-hp fast fishing boat Order of Magnitude, built by Kodiak Marine Construction of Sequim, Wash. Her fish-spotting tower/mast folds down aft to help her gas turbine engine power her to over 50 knots.

first in a new series from this company, featuring a 32-inch-diameter jet.

Kodiak Marine Construction constructed her hull mainly from aluminum, with GRP (fiberglass) used for the topsides at the bow to get the required hull shape. GRP is also used for the superstructure.

At high speed, when running on

the turbine, Order of Magnitude's fish spotting tower/mast folds down aft, exposing the air intake for the gas turbine.

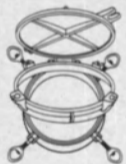
For more information on the new seiner and free literature on the facilities and capabilities of Kodiak Marine Construction,

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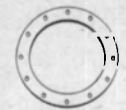
CC-7135
Weld-in Airport
with optional deadlight cover
and screen



CC-7136
Bolt-in Airport
with optional deadlight cover
and screen



CC-7137
Weld-in Fixed Portlight
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flush mounting



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Bolt-in Fixed Portlight
with optional deadlight cover

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Maritime Reporter/Engineering News



Fish Expo '91

Largest Commercial Fishing Show Scheduled For Seattle, October 17-20

The largest U.S. commercial fishing industry trade show and exposition and one of the largest in the world will be held at the Seattle Center in Seattle, Wash., from October 17 to 20, 1991.

Called Fish Expo, the annual trade show for commercial fishermen is now in its 25th year. The show site alternates between the East Coast and the West Coast, with Seattle being the location in the odd-numbered years and Boston in the even-numbered years. Next year, National Fishermen Expositions plans to hold Fish Expo at the Bayside Expo Center in Boston, Mass., from October 15 to 17, 1992.

In Seattle, there will be four exhibit halls showcasing nearly 1,000 booths featuring the latest in commercial fishing equipment and electronics specifically designed for the commercial fisherman. Among the products and services on exhibit will be fish and workboat builders and repairers, marine diesel and gasoline engines, navigation and communication equipment, deck machinery, refrigeration equipment, financial services, insurance, etc.

PHOTO: Lew Van DeMark, MARCO

Fish Expo is especially designed for commercial fishermen from around the world. More than 18,000 buyers will attend, ranging from one-man operations to multimillion-dollar companies coming to purchase new equipment for their organization. They include vessel owners, captains, deckhands, seafood processors, etc.

A series of in-depth seminars will be presented at the show as well. The seminars, which are free to Fish Expo attendees, will focus on environmental and legislative changes that affect the commercial fisherman.

On Thursday, October 17, from 11 a.m. to 2:30 p.m., a seminar will be presented on "Troubleshooting Small Boat Refrigeration." Since more commercial boats carry chillers, freezers, and other quality control refrigeration systems to increase fishermen's profits and bring a quality product to market, it is important to keep them running. This seminar will show you how.

At 2-3:30 p.m. on the same day, a seminar entitled "The Share Quota Era" will examine the issue of federal fisheries as they are guided toward vested ownership by share

quotas. This seminar will focus on what has worked in other countries trying such systems and what variations and pitfalls fishermen in the U.S. might encounter.

On October 18, from 10:30 a.m. to noon, "Safety at Sea: The New Regs" will be presented. This seminar will provide practical advice on living with the new Coast Guard regulations on fishing vessel inspection, crew licensing and other safety rules.

At 12:30-2 p.m., on October 18, a "Coast Guard Forum" will be presented. The Vice Commandant of the Coast Guard and other Coast Guard representatives will field questions from fishermen.

At 2:30-4:30 p.m. on the same afternoon, the seminar "What Now for Salmon Markets?" will be held. With salmon markets collapsing in 1991, many Pacific Coast fishermen were left "holding the bag." This session will focus on the state of the market and efforts to develop alternative product forums.

"Cooperative Boat Building" on Saturday, October 19, from 11 a.m. to 12:30 p.m., will provide practical tips for fishermen who are considering teaming up with an established yard to work on all or part of a new

boat.

On the lighter side, at 2-3:30 p.m., "Fish is Food: Creativity in the Kitchen" will be presented. A well-known gourmet cook and a panel of gastronomic experts will discuss seafood.

One of the most well-attended and practical seminars will be presented on October 20, at 10:30 a.m. to 12 noon, "Troubleshooting Marine Diesels." The session will provide a short course in the inner workings of marine diesels, with useful tips for maintenance and repair.

Other seminars on October 20 will include "What Happened To California Gillnetters? Fishermen, Marine Mammals and Endangered Species in the 1990s" at 12:30-2 p.m., and "Habitat is Where It's At" from 2:30-4 p.m., which will focus on a review of ways fishermen can become active participants in insuring the preservation and restoration of oceanic, coastal zone and riparian habitat.

For further information on attending the Fish Expo Show, contact: National Fishermen Expositions, 5 Milk Street, P.O. Box 7437 DTS, Portland, Maine 04112; or telephone: (207) 772-3005.

**Guide To
FISH EXPO '91
EXHIBITORS
(Partial Listing)**

Company	Booth
AAA Fire & Safety	2125
Aardvark Corp	2239
ACCES Inc	4022
ACR Electronics Inc	6424
AIFMA Corp.	15
Alaska Inc	6024
Alaska Commercial Fisherman	6325
Alaska Crab Coalition	22
Alaska Diesel Electric	404
Alaska Marine Engines	309
Alaskan Battery Supply	5000
Alaska Oil & Gas Association	4121
Alaska Pump & Supply Inc	2305
Alaska Ship Supply/Delta Western/	403
Alden Electronics Inc	239
Allied-Signal Inc	6318
Alpak Food Equipment Company	6423
Alpha Diesel	345
Alyeska Pipeline Service Company	4133
American Air Filter	2302
American Bow Thruster	5039
American Bureau of Shipping	TBA
American Cyanamid Company	6316
American Eagle Mfg Inc	5119
American Equipment Co Inc	6501
American Flex & Exhaust Products	2420
American Hose & Fittings Inc	2224
American Insulation	2420
American Manufacturing Co Inc	5126
American Pioneer Inc	6403
Ameron Marine Coatings Division	4107
AMSEA	21
A M Services Inc	2411
Port of Anchorage	6325
Anderson Marine Repair Inc	2422
Anthony's Indus. Marine Services	6418
Apex Equipment Inc	123
APV Baker	625
Aqua Drive Systems	243
Aqua Signal Corporation	733
Fred Arbogast Co Inc	4113
Argo International-Marine Division	6209
Aikon Safety Equipment Inc	2011
Aronson Campbell Industrial Supply	4102
Asiaco	6110
Atlantic Marine Inc	334
Atlas Industries USA Inc	6217
AT&T	600
AT&T High Seas	
Radiotelephone Service	501
Aurora Crane Corp	1004
Autofisk A/S	205
Avenue Louis-Martin	5028
Avon Seagull Marine	5016
Baldwin Filters	171
Ballard Inflatable Boats	96E
Ballard Insulation	2014
BayleySuit Inc	6428
Bearings Inc	2402
Beck Electric Supply	2249
Bender Shipbuilding	513
Benmar Marine Electronics	414
Bergen & Co	5015
Bevis Rope	2104
BF Goodrich	708
B & G Machine Inc	6534
Bird-Johnson Company	504
Boat Electric Co Inc	6237
Bonar Plastics Inc	915
Borg-Warner Marine & Indus. Trans	146
Bowman Refrigeration Inc	4119
Boxmaster Inc	72
Branom Instrument Company	2108
Bridon American Corporation	2407
Bridport Pacific Inc	972
Bristol Bay Borough	6325
Bristol Bay Driftnetters Assoc	6504
British Marine Equipment Assn	625
Canada Metal Company	2006
Cantrawl Pacific Fishing Services	2018
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Cascade Machinery & Elec	835

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Centrico Inc	5025
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Cerfil	6525
Cetrek-Wagner	903
Chevron USA Inc	188
Christiania Bank	109
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Coast Crane Co of Wash	5127
Coastdesign Inc	2103
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Coast Industrial Supply Co Inc	5009
Coastline Equipment Inc	604
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Columbian Rope Company	5036
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Continental Western Corporation	994
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Cospolch Refrigerator Company	6309



PHOTO: Lew Van De Mark, MARCO

Covich-Williams Co Inc	6503
Crosby Group, The	6400
CRS Service Inc	4130
C-Tech Ltd	168
Cummins Engine Company Inc	425
Custom Sea Gear Inc	5140
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V M Dafoe Machine Shop Ltd	918
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LeClercq Marine Construction	975
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Lister-Petter Inc	743
Lunde Electric Co Inc	725
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Magnavox Advanced Products	
& Systems Co	536
Magnum Boats	92W
Marco Seattle	523
Marel	6110
Marine Exhaust Systems of AL Inc	2301
Marine Matrix NW	623
Marine Safety Services Inc	2033
Marine Ship Supply	445
Marine Travelift Inc	178
Maritime Fabrications	
Maritime Reporter	
& Engineering News	23
Maritime Services Corp	6313
Marland Enterprises Corporation	525
J.M. Martinac Shipbuilding	944
Mathers MMC Inc	184
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Mcintosh Marine Inc	2240
Measurement Systems International	210
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Merifield Company	151
MER - Marine Engine Repair	80
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Michigan Wheel Corp	509
MicroAccounting Systems Inc.	6506
Micrologic Inc	957
Microphor Inc	5007
Mid Coast Marine Oregon Corp	612
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Mobil Oil Corp	5012
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Momoi Canada Ltd	517
Morad Electronics	508
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MP Pumps Inc	238
Murphy Frank W Mfr	726
O. Mustad & Son (USA) Inc	447
Napier Co (Arbroath) Ltd	416
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Neptune Machinery Inc	6018
Neptune Trading Group Ltd	2216
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Nordic Boat Yard 5041
 Nordic Machine & Mfg 938
 Nordic Supply A/S 205
 NorFish Marine Services Inc 6025
 Norfloat Inc 1005
 Nor-Prop Inc 6407
 North American Marine Jet Inc 6434
 Northcoast Marine Products Inc 2309
 Northcoast Refrigeration Inc 2021
 Northern Enterprises 2016
 Northern Marine Electronics 821
 Northwest Marine Services Corp 117
 Northwest Propeller & Machine Works 6402
 Northwest Scale Systems 2408
 Norwegian Trade Council 205
 Nova Scotia Dept Industry, Trade, Tech. 900
 NPFVOA Vessel Safety Program 2242
 A/S Odin 205
 Offshore Marine Laboratories Inc 968
 Offshore Systems Inc 6108
 Oilwind 345
 Omnitruster Inc 41
 Pacer Pumps Inc 315
 Pacific Rim Diesel Inc 6324
 Pacific States Marine Fisheries 5130
 Pacific States Marine Fisheries Comm 5134
 Parkway/Imperial 162
 Guido Perla & Assoc Inc 49
 Petro Marine services 5031
 Phoenix Products Co Inc 3
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 Port of Newport 62
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 Port Townsend Boatworks 108
 Port Townsend Shipwrights Coop 5023
 The Prop Shop Inc. 180
 Puget Sound Inflatables 173
 Puget Sound Instrument Co 6415
 Pullmaster Winch Corporation 964
 Pump Industries Inc 106
 Purse Seine Womens Assoc 20
 Quality Marine Products Inc 4103
 Rabaul Diesels Inc 6224
 Rapp Hydema A/S 205
 Rapp Hydema US Inc 222
 Raytheon Marine Company 325
 Redden Net Co Inc 934
 Reef Fisher Products TBA
 Regatta A/S 205
 Rescue Ring Inc 68
 Revere Supply Company 6337
 The Rexroth Corporation 5027
 R H Trading 910
 Rich Electronics 66
 E S Ritchie & Sons Inc 2116
 Robertson-Shipmate Inc 344
 Rodgers & Assoc 4012
 Rodriguez Boat Builders Inc 6314
 Ryan Engineering Inc. 841
 Sabroe Refrigeration Inc 6223
 Samson Ocean Systems 647
 SAS Fluid Power 2126
 Scandvik Inc 5137
 Scanmar A/S 205
 Sea-Fab Inc 5017
 Sea Glaze Marine Windows Ltd 4015
 Seahorse Boats *
 SEA Inc 346
 Sea-Land Industries 114
 Sea Recovery Corporation 926
 Sea Technology Co 4021
 Seattle Crane & Equipment Co 914
 Seattle Marine & Fishing Supply Co 937
 Sigma Honda Sales Inc 4026
 Simpson Power Products Ltd 174
 Simrad Inc 946
 SI-TEX Marine Electronics Inc 503
 Skookum/Rope Master-Ulven 2245
 Sound Propeller Services Inc 6236
 Southern Skimmer Company 84W
 Sparks-Wagner Inc. 4002
 Spencer Fluid Power 400
 Sperry Marine Inc 533
 Spyderco Inc/Golden Promotions 2257
 Stainless Design 4136
 Stam Supply Inc 5002
 State of Alaska 6325

Stearns Manufacturing Company 5117
 Sunnfjord Boats Inc 909
 Systems Engineering Inc 6507
 Tacoma Diesel & Equipment 6136
 Teknotherm US Inc 6323
 Teleflex (Canada) Ltd 2015
 Texaco Refining & Marketing Inc 2027
 Todd Shipyards Corporation 6117
 Torin Inc 70
 Trans Pacific Trading Inc 608
 Traust Fabricators 6110
 Tremetrics Inc 4111
 Tri Coastal Industries 6216
 Trident Seafoods Corp 107E

Trimble Navigation 76
 Trijo Industrier A S 205
 Twin Disc Incorporated 424
 Ultra Poly Inc 6319
 Ulven Forging Inc 2247
 Unitor Ships Service Inc 6429
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 Wagner Marine Systems Inc TBA
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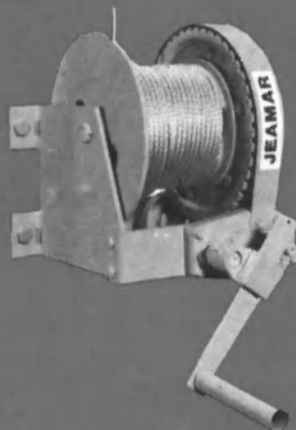
Washington Automated Inc 2237
 Watermakers Inc 6520
 Wegley Boat Enterprises *
 Wesmar 157
 Western Fluid Components 6101
 Western Pioneer/Wire Rope Ind. 5028
 West Marine Products Inc 5143
 Willard Marine Inc 2005
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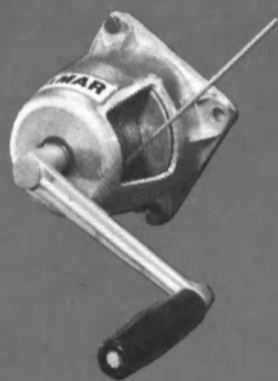
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- Designed for continuous heavy duty applications
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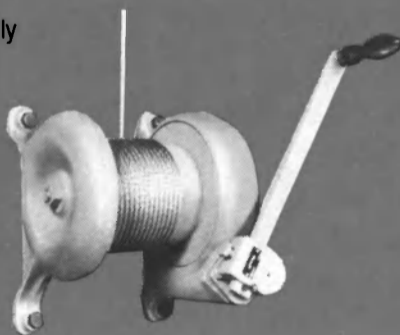
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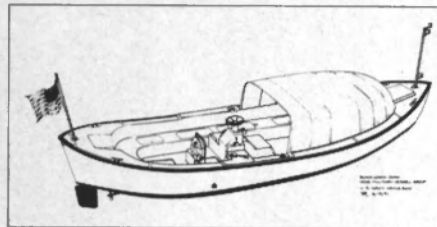
So we handle your boat like it was our own. From our three drydocks, Portland's experienced contractors perform half of all West Coast commercial ship repair. And they'll fabricate just about anything you need.

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Navy Awards \$3 Million Contract To Hood Military



Outboard drawing of the Mark 12 model whale boat from the Hood Military Vessel Group.

The Hood Military Vessel Group (HMVG) of Hood Enterprises, Inc., Portsmouth, R.I., has been awarded a \$3 million contract to build motor launches for the U.S. Navy. This is HMVG's first U.S. Government production contract.

The contract is for a 26-foot motor whale boat designed to transport crew and supplies to and from Navy vessels at installations and port destinations. The initial order is for 10 boats, with an option for an additional 30 boats. The new boats will replace older whale boat models. The Navy currently has a fleet of about 1,200 whale boats in service.

HMVG's "Mark 12" version of the traditional Navy motor whale boat design will be the prototype for a new generation of motor launches. Like the older whale boats, the new boats will be unsinkable. The Mark 12 will feature a modified hull shape to improve sea handling.

HMVG markets military and municipal patrol boats to governments, port authorities and agencies worldwide.

For free literature detailing the full line of vessel models from HMVG,

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Dt-Developed Process Has Applications In Ship Repair Conversion And Salvage

Diversified Technologies (Dt) recently completed a survey of forward offsets of a "Romeo" Class submarine at Alexandria Shipyard in Alexandria, Egypt, for Tacoma Boat-building Co. of Tacoma, Wash.

Dt engineers Jack Kalro and Steve Lawson, using Dt's Total Station and Integrated Computer Programs measured the offsets of the bow of the submarine at approximately 1,000 locations. The measurements were taken accurate to +/- 1/8 inch. The data is recorded electronically along with text and other identifying information, corrected automatically for environmental conditions, temporarily stored in an Electronic Field Notebook, and then transferred to a portable computer. The results are configured to be used with a variety of architectural programs, including AutoCad and AutoShip.

The Dt-developed process has numerous applications in ship repair, conversion and salvage. Also,

October, 1991

according to the company, it is faster and more cost-effective than manual lofting and photogrammetry process.

Other recent projects using this method have included surveying the damaged foresection of the Independence Service for Donjon Marine in Puerto Rico, the Chesapeake Slars installation for Houston Ship Repair, as well as several sonar dome alignments for NOAA.

For details,
Circle 14 on reader Service Card

First Of 3 Japanese-Built Tugs Enters Service With Roda Bolaget In Sweden

The first of three Japanese-built tractor units recently entered service with the Swedish towage fleet of Gothenburg-based Roda Bolaget.

Named John af Goteborg, the 350-gross-ton "John" was built by Matsuura Tekko Zosen Co. Ltd. of

Hiroshima and delivered by heavy-lift ship from Japan to the Port of Gothenburg, where it was unloaded.

The tug is powered by two Yanmar main engines producing a total of 4,000 bhp, driving Kawasaki Texpeller azimuthing thrusters. Maximum bollard pull is 57 tons. A free running speed of 12.5 knots can be achieved.

The two sister tugs of "John" are scheduled to be operational in the near future.

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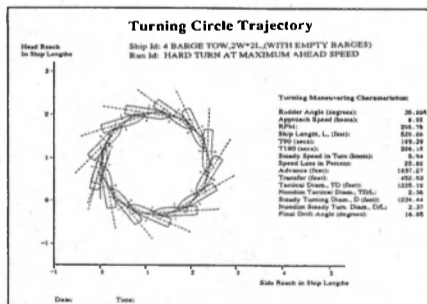
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Harland And Wolff Wins Orders Worth \$365 Million To Build Six Bulk Carriers

Belfast-based Harland and Wolff Shipbuilding and Heavy Industries Ltd. (H&W) has signed agreements for the construction of six of its new generation of Cape-size bulk carriers with two major international shipping companies.

Three of the vessels have been ordered by Hong Kong-based Swire Group, and the other ships are being built for the diversified London shipowner and operator Cenargo.

The six-ship series, with an approximate value of \$365 million, brings the yard's total order book to about \$870 million. These are the first orders to be won since privatization from companies other than those associated with Fred.

Olsen, the yards' main shareholder. These new orders will provide work for the company through 1994.

Of around 160,000 dwt, the new Cape-size bulkers were designed by H&W and are to be hull-strengthened in response to the spate of about 40 series bulk carrier casualties over the last two years. H&W's Cape-size design was the result of considerable research and planning and offers flexibility and economy. The ships are designed to carry mainly iron ore and coal.

The new Harland and Wolff vessel has been specifically designed to avoid short life span and to address the major causes of structural weakness which have highlighted the



The Harland and Wolff sales team, shown studying the new H&W cape-size bulk carrier design, are (from left to right): Dr. **Maria V. Moloney**, general manager, marketing and business development; **Per Nielsen**, managing director, shipbuilding; Dr. **T. John Parker**, chairman and chief executive; and **Kjell Avrin**, technical director.

need for radical change in design and building methods.

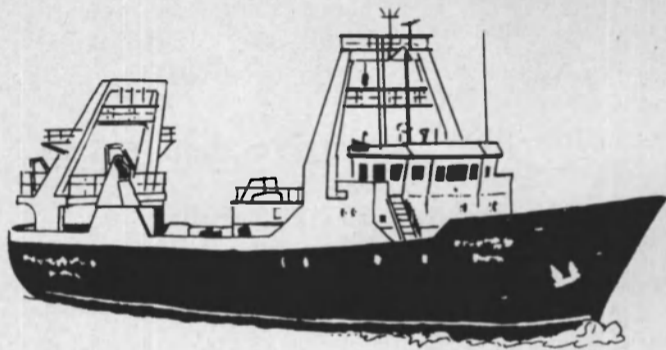
Believed to be one of the largest commercial orders ever placed with a U.K. yard, delivery of the vessels is scheduled to start at the end of

1993.

For free literature detailing the facilities and capabilities of Harland and Wolff Shipbuilding,

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Circle 211 on Reader Service Card

Maritime Reporter/Engineering News

Fjellstrand Delivers Second Of 2 Catamarans To Danish Ferry Operator



The new Kvaerner Fjellstrand-built high-speed passenger catamaran Springaren can carry a total of 255 passengers, divided between 216 on the main deck and 39 on the upper deck.

The second of two 127.3-foot passenger catamarans from Kvaerner Fjellstrand of Norway was recently delivered to Danish ferry operator Dampskibsselskabet Oresund (DSO).

Named Springaren, the newbuilding is a sister ship to the Loberen, delivered by Fjellstrand—part of Norway's Kvaerner group—in September 1990.

DSO carries 1.4 million people annually on the crossing between the center of Malmo in Sweden and downtown Copenhagen in Denmark. The trip is completed in 40 minutes by the new Kvaerner Fjellstrand-built catamaran. The ferry flies the Swedish flag and is operated by Svenska Rederi AB Oresund, a wholly owned subsidiary of DSO.

In addition, DSO owns and operates the ferry route between Dragor in Denmark and Limhamn in Sweden, in collaboration with Scandinavian Ferry Line.

For free literature detailing the facilities and capabilities of Kvaerner Fjellstrand,

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Computervision Announces Recent Contract Awards Totaling Over \$5.7 Million

Computervision, Bedford, Mass., recently announced the award of several contracts for its computer-aided design, manufacturing, and engineering (CAD/CAM/CAE) product line to the shipbuilding industry totaling over \$5.7 million. The shipbuilding industry uses Computervision's CADDs, MEDUSA, and engineering data management (EDM) software and solutions to reduce product development time, lower development and manufacturing costs, and improve product quality.

The awards were as follows:

—Newport News Shipbuilding & Drydock Company, Newport News, Va., manufacturer of ships, aircraft carriers, and submarines, signed a contract valued at \$1,400,000 for MEDUSA software and Digital Equipment Corporation (DEC) work stations to design and lay out shipyard facilities. This sale marks the first joint sales venture between

DEC and Computervision.

—Hyundai Heavy Industries (HHI), one of the largest shipbuilding companies in Korea, agreed to purchase 46 additional CADDs seats for \$2.4 million to run engineering data management software, pipe and mechanical software, and lay out software. HHI's installed base now totals 103 Computervision seats.

—Daewoo Shipbuilding & Heavy Machinery, Korea, bought \$1.4 million worth of CADDs hardware and software, including EDM, for ship design.

—Gibbs and Cox, a New York-based naval architect and marine engineering firm, recently purchased \$550,000 in piping and mechanical design solutions for design and analysis work for the Navy. These systems will allow Gibbs and Cox to implement a concurrent engineering link with the Computervision systems already installed at the Navy.

For further information and free literature from Computervision,

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Gulf Of Mexico Abandonments Tackled By Smit Project Team

Smit International recently completed its largest platform abandonment project yet in the Gulf of Mexico. The contract called for total removal of the main deck and jacket of the Vermillion 372 platform, an eight-pile structure in 296-foot water depth. The project was carried out by Smit International's Houston-based subsidiary, Smit American Salvage Inc.

Taklift 6, a floating "sheerlegs" crane of 1,330 ST lift capacity, removed the 1,000-ton main deck. The sheerlegs then joined forces with the Takheave 31, a 3,300 ST pull-barge, to remove the 2,800-ton jacket. The jacket was toppled, lifted and then towed in a horizontal position to a designated "artificial reef" disposal site.

Smit carried out its first platform abandonment project in the Gulf of Mexico during 1988. Two platforms were removed over the following two years. A further three platforms were also removed in 1990, all from locations with water depths of around 300 feet. Each structure was towed to appointed disposal sites under state authorities' "Rig-to-Reef" programs.

The Smit vessels are based at Galveston, Texas. They were mobilized in June to tackle the 372 platform, and the project took some three weeks to complete. The Platform Abandonment Project Team is now mobilizing for removal of the West Cameron 480 platform, an eight-pile structure in a water depth of 145 feet. This involves the lift of the 950-ton topsides and the toppling and tow of the 1,700-ton jacket.

Abandonment activities are anticipated to increase each year into

the first decade of the 21st Century. The best estimates available today suggest that the abandonment program will involve total expenditure in the region of \$10 billion.

The Smit team's cost-effective solution to platform removal needs in the Gulf of Mexico is gaining wide recognition. Structures of up to 4,400-ST can be toppled, towed and disposed of at designated sites.

For further information and free literature from Smit International,
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Metro Machine Wins \$47.8 Million Pact For Phased Maintenance

Metro Machine Corp., Norfolk, Va., was recently awarded a \$47.8 million contract for the phased maintenance program for LPD class amphibious transport dock ships homeported in Norfolk. The Naval Sea Systems Command, Washington, D.C., awarded the contract, N00024-91-C-8502.

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Contact Ameron's Marine Coatings Division: Brea, California (USA), 714/529-1951; Croydon, Surrey (UK), 680-3777; Hong Kong, 5-298212.

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Navy Awards Vessel Repair Contracts To U.S. Shipyards

In the Northeast U.S., American Shipyard Corp., Newport, R.I., will perform service craft overhaul on the TWR-681 Labrador under a \$295,837 contract.

In the Mid-Atlantic states, Newport News, Virginia-based Davis Boat Work, Inc. was recently awarded a \$369,369 contract for ship repair work to the YFN-1283.

Braswell Services Group, Inc., Charleston, S.C., is performing repair work on the TRB-3 under a \$104,763 award.

One of the busiest repairers in the U.S., Norfolk Shipbuilding & Drydock Corp. of Norfolk, Va., received an \$8,342,180 contract for the repair and overhaul of the USS Shippingport (ARDM-4).

Metro Machine Corporation, Norfolk, Va., received \$149,131 for advanced planning of the USS Ponce (LPD-15) Fiscal Year 1992 phased maintenance availability.

Earl Industries, Inc., of Portsmouth, Va., received a \$1,833,400 contract for ship repair work on the cruiser USS Biddle (CG-44).

In the Southeast U.S., the Bellinger Division of Jacksonville Shipyard, Inc., in Jacksonville, Fla., has received a \$321,378 contract for work on the 50WB813.

Out West in southern California, the USS Jason (AR-8) will undergo a \$1,397,884 restricted availability at Continental Maritime of San Diego.

In the Pacific Northwest, Tacoma Boatbuilding Co., Tacoma, Wash., has received a \$103,166 contract award for work on the YON-102.

Trinity Marine Begins Construction Of Ninth Tug For Bouchard

Moss Point Marine, Inc., a subsidiary of Trinity Industries, Inc., and a member of the Trinity Marine Group, recently began the construction of the Barbara E. Bouchard, a 127-foot oceangoing tug for Bouchard Transportation Co., Hicksville, N.Y., at its Escatawpa, Miss., yard.

When delivered in the first quarter of next year, the Barbara E. Bouchard will be the ninth tug designed and built for Bouchard by a Trinity company.

The new 127-foot tug will have a beam of 37 feet and 20-foot depth. She will feature a raised pilothouse with an eye level of 57 feet above the design waterline for visibility over large tows.

The Barbara E. Bouchard will be powered by two General Motors EMD 16-645-F7B turbocharged diesel engines developing a total of 6,140 hp through Falk reverse/reduction gears. The tug's three Kato 99-kw generators will be driven by three Detroit Diesel 8-V71 diesel engines.

One of the generator sets will serve as a standby unit for long ocean tows. Bouchard tugs usually operate on the East and Gulf Coasts of the U.S.

A Markey winch mounted on the aft deck and powered by a Detroit Diesel 6-71 diesel engine will enable the tug to tow on a hawser.

For free literature detailing the ship and boat building capabilities of the Trinity Marine Group,

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ScanRope Wins Contract For 12 Wire Rope Slings

Saipem S.p.a., Milan, has awarded ScanRope A/S, Norway, a contract for 12 wire rope slings of mega class. These slings will be used onboard the Micoperi 7000 during lifting of template/modules on the BP Bruce Project.

Each sling will have a breaking load up to 6,000 metric tons and unit weights up to above 60 m.t. By

using sets of four double-laid slings, Micoperi 7000 will be able to lift about 10,000 m.t.

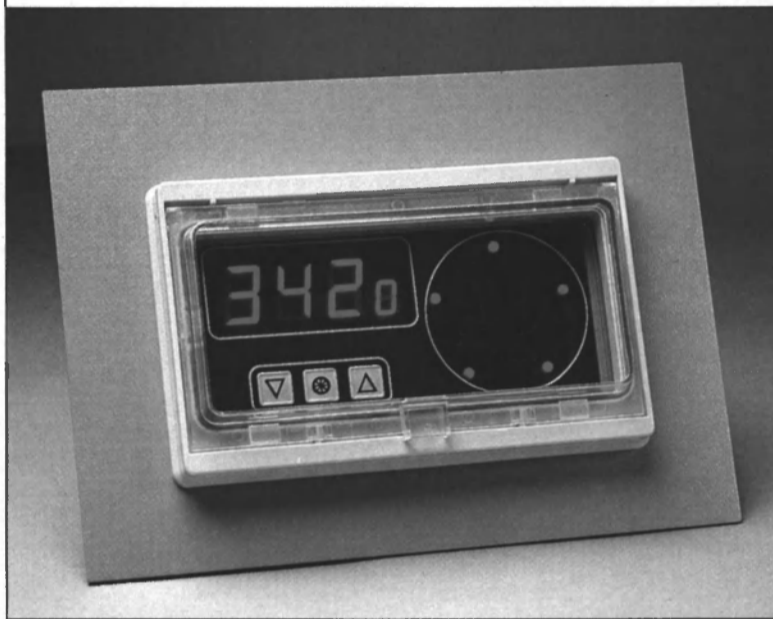
ScanRope supplied similar slings in 1990 for the lifting operations of both the Gyda and Veslefrikk jackets.

In addition to slings, ScanRope has supplied the Micoperi 7000 with crane ropes and anchor wire lines in unit weights of 135 tons.

For free literature detailing ScanRope products,

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Commercial Fishing Industry Vessel Safety Act Of 1988

Coast Guard's Critical Final Rules On Safety, Design And Operations Take Effect

The U.S. Coast Guard recently issued its final comprehensive set of safety, design, and operational regulations which will have widespread implications not only for the commercial fishing industry, but also for the manufacturers and suppliers that support it. The rules, which took effect September 15, 1991, apply to all uninspected commercial fishing vessels except sport fishing vessels.

"The Coast Guard is committed to improving safety in the commercial fishing industry," said Coast Guard Commandant Adm. **J. William Kime**. "These regulations are a major step in reducing the unacceptably high accident rate in the fishing industry."

According to the U.S. Department of Labor, each year more than 80 fishermen die and some 200 vessels are lost. Until now, uninspected fishing vessels only had to meet minimal safety equipment requirements.

The regulations were mandated by the Commercial Fishing Vessel Safety Act of 1988. The act required the Coast Guard to develop comprehensive safety rules dealing with radio communication, navigation, lifesaving, firefighting and electrical and marine equipment. It also required a stability evaluation for new vessels and the compilation of accident data.

The regulations apply to all U.S. uninspected commercial fishing vessels, fish processing vessels, and fish tender vessels, except fish processing vessels of more than 5,000 gross tons and fish tender vessels of more than 500 gross tons, since they are subject to inspection. Vessels that alternate between commercial and sport fishing must comply with the requirements for the service in which they are engaged.

For all vessels, the act calls for regulations concerning the following equipment:

- (1) Fire extinguishing equipment;
- (2) Life preservers;
- (3) Backfire flame arrestors for gasoline engines;
- (4) Ventilation of enclosed spaces;
- (5) Visual distress signals;
- (6) Buoyant apparatus;
- (7) Alerting and locating equipment, including Emergency Position Indicating Radio Beacons (EPIRBs).

Other Equipment Regulations

Other regulations have been developed for vessels that operate with more than 16 individuals on board or have undergone a major conversion or were completed after September 15, 1991 and operate with more than 16 individuals on board. Regulations concerning com-

munication and navigation equipment, first aid equipment and immersion suits have been developed for these size vessels.

Requirements For All Vessels

Subpart B contains regulations which apply to every commercial fishing industry vessel. The requirements of this subpart are in addi-



The Coast Guard's recent final set of rules on safety, design and operations mandated by the Commercial Fishing Vessel Safety Act of 1988 will affect all uninspected commercial fishing vessels. Shown is the Marco-built trawler Storm Petrel.

tion to the remainder of the requirements of 46 CFR Subchapter C, which also apply to commercial fishing industry vessels.

Lifesaving Equipment

The intent of 46 CFR Subpart 25.25 and 4502 (b) of the act is to make required wearable personal flotation devices (PFDs) easily accessible to individuals on board in an emergency. In some instances, such as large fishing processing vessels, this may require that immersion suits or other wearable PFDs be provided in duplicate for some individuals whose work stations are not near their berthing area, the normal stowage space for PFDs.

Section 28.110 also requires that certain documented vessels operating on the Great Lakes carry at least one immersion suit or exposure suit of the proper size for each individual on board. At least one immersion suit or exposure suit is also required for individuals on board a vessel that operates on cold waters on either coastal waters or more exposed routes.

Wanted: Immersion Suits For Children

To date, there are still no approved immersion suits suitably

sized for individuals weighing less than 44 pounds. This is a particular problem in the North Pacific area where there are a number of children participating in family fishing operations.

As a consequence, provisions have been added to allow for substitution, over the next four years, of another type of PFD for individuals under 44 pounds. This period should allow interested manufacturers time

used. The Coast Guard is considering approval of a "coastal" life raft. Proposed standards for these craft will be published in the Federal Register.

A graduated implementation schedule for having survival craft on existing commercial fishing industry vessels has been worked out. Existing documented vessels that operate in the North Pacific area, generally north of the Strait of Juan de Fuca, would have to comply by September 1, 1992. Existing documented vessels that operate on the Great Lakes or in the Atlantic Ocean, north and east of a line drawn at a bearing of 150 degrees true from Watch Hill Light, Rhode Island, must comply with this section by September 1, 1993. All other existing documented vessels must comply by September 1, 1994. By September 1, 1995, all vessels, including state numbered vessels, would have to comply.

Requirements For Larger Vessels

Some of the notable requirements in Subpart C, which apply to documented vessels that operate with more than 16 individuals or beyond the Boundary Line, state that each vessel must be equipped with a VHF radiotelephone in order to communicate with a public coast station or a Coast Guard station. Radio transceivers are required on vessels operating more than 20 nautical miles from shore and on all vessels operating in waters contiguous to Alaska.

Satcom capability with a system servicing the vessel's operating area or a cellular telephone capable of communicating with a public coast station or U.S. Coast Guard station is permitted as a substitute for the radiotelephones required.

Echo Sounders Required For Larger Vessels

Requirements in Subpart D apply to vessels which have their keel laid on or after September 15, 1991, and that operate with more than 16 individuals on board. They also apply to vessels which have undergone a major conversion which was completed after September 15, 1991.

One notable requirement in this subpart is that all vessels must be fitted with radar and an echo sounding device. Nearly all existing vessels are believed to be fitted with radar.

However, not all vessels are equipped with an echo sounder. The Coast Guard believes that vessels equipped with echo sounders would be better able to avoid groundings.

to design and obtain approval for these size immersion suits.

Furthermore, the wording in 28.110 (a) has been revised to ensure that manned barges employed in commercial fisheries are now included in the final rule.

Ring Life Buoys

Section 28.115 expands requirements for ring life buoys set forth in 46 CFR Subpart 25.25. Vessels in excess of 65 feet in length now require two additional ring life buoys. Previously, only one was required on vessels in excess of 26 feet in length.

Survival Craft

The requirements for survival craft are graduated based upon the area of operation. The minimum requirement for the most exposed routes is inflatable life rafts with enough total capacity to accommodate all individuals on board. The inflatable life rafts must be the same "ocean service" or SOLAS 74/83 type that are currently used on inspected commercial vessels that operate in ocean service.

For vessels on less exposed routes, a less sophisticated life raft may be

Hitachi Zosen Delivers HZ-B&W-Powered VLCC Nichiryu



The HZ-B&W-powered Nichiryu, recently delivered by Hitachi Zosen, has cargo-handling equipment, valves and tank level gauges that can all be remotely controlled and monitored from the cargo control room.

Hitachi Zosen's Ariake Works recently completed and delivered the Nichiryu, a 242,416-dwt VLCC. The 1,063-foot-long by 190.2-foot beam vessel, built for Golden Sunrise Navigation S.A., is a sister ship of the Nichioh, completed and delivered in September 1989, and is operated by the same company, Nissho Shipping Co., Ltd.

Principal features of the Nichiryu include a newly developed SSD (Hitachi Zosen Super Stream Duct), greatly improving propulsion efficiency; and stainless steel pipes and aluminum-brass pipes, as well as pipe bands of the same materials, are used in the hydraulic oil piping system on the upper deck for further enhancement of the system's corrosion resistance.

The ship is powered by a Hitachi Zosen-B&W 8S80MCE diesel engine with a maximum continuous output of 24,220 hp by 69.4 rpm, producing a speed of 15 knots. Thanks to the great derating of this highly fuel-efficient engine and the best tuning obtained by employing a highly efficient supercharger, this VLCC offers an unprecedentedly low rate of fuel oil consumption.

To ensure comfortable and reliable navigation with a small crew, the following automation and labor-saving measures have been incorporated, along with many innovative ideas for enhancing reliability and safety: NK's machinery automation notation MOA obtained; equipment allowing 10-year non-open inspection of the propeller shaft; electrohydraulically driven mooring winch equipped with a remote control device; tug-line master and heaving winch; electrohydraulically driven deck crane; and newest-type loadmeter (Loadmeter 700).

For free literature detailing the facilities and capabilities of Hitachi Zosen,

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MarAd Terminates All War Policies On MSC Vessels In Gulf Conflict

At the request of the Military Sealift Command, the Maritime Administration is terminating all war-risk policies placed in response to Operation Desert Shield and

Desert Storm. The termination became effective on September 30, 1991.

On August 20, 1990, MarAd received authority from the President under Section 1205 of Title XII of the Merchant Marine Act, 1936, to issue war risk policies on vessels in the employ of the MSC in support of Operation Desert Shield.

Under that authority, MarAd wrote policies on 388 vessels for a total coverage in excess of \$20 billion.

Samsung To Build Two Aframax Double-Hull Tankers Worth \$120 Million

Conoco, the U.S. oil company, has confirmed a provisional order in South Korea for two Aframax double-hull tankers worth just under \$120 million.

Following an earlier letter of intent from the owner, contracts have been signed with Samsung Ship-

building and Heavy Industries for delivery of the ships in the third and fourth quarters of 1993.

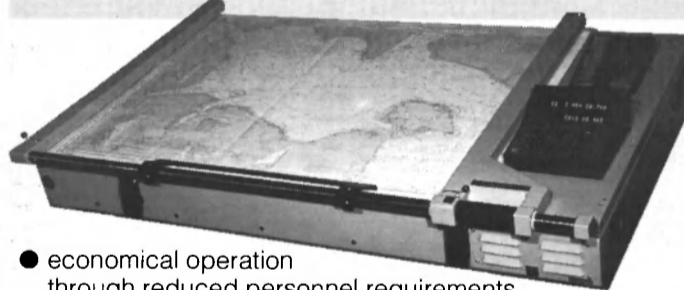
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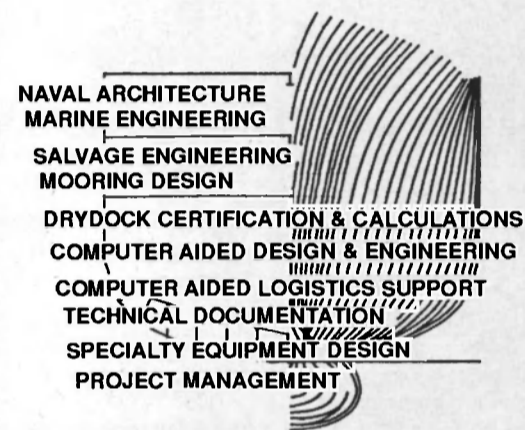
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SSE Secures \$38 Million Contract To Build Two Container Vessels

Singapore Shipbuilding & Engineering Ltd. (SSE), the marine arm of Singapore Technologies, has secured a contract worth \$38 million (approximately S\$67 million) for the construction of two container vessels for American-based shipowner Tropical Shipping & Construction

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The vessels will be completely designed in-house by SSE's team of naval architects and engineers. To be classed by Bureau Veritas, the vessel will also meet the new IMO 1992 Rules on damaged stability for RO/RO vessels.

The first vessel is scheduled for delivery in February 1993, followed by the second in mid-1993.

Tropical Shipping currently owns 12 vessels and operates a container liner service to 17 destinations in

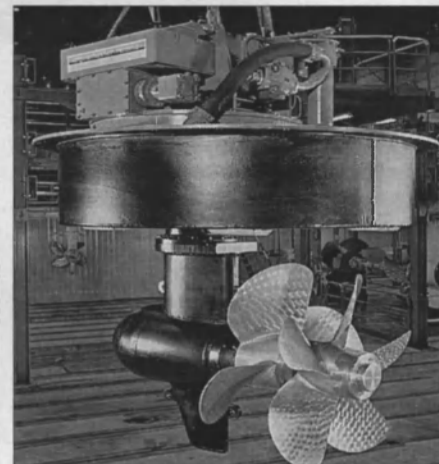
the Caribbean, Bahamas and Central America from its base in Port of Palm Beach, Fla.

Currently under construction in the yard are the second and third vessels of an order for three 445-TEU Feeder Container Vessels for Neptune Orient Lines of Singapore secured last year.

For free literature detailing the facilities and capabilities of Singapore Shipbuilding,

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Volvo Penta Signs Patent Agreement With Aquamaster-Rauma



Aquamaster CRP

An agreement has been signed between AB Volvo-Penta and Aquamaster-Rauma Ltd., giving Aquamaster the worldwide right and license to manufacture and market products based on Volvo Penta's patents and know-how regarding counter rotating propellers. Volvo Penta is entitled to utilize Aquamaster-Rauma's know-how in its product development and manufacturing.

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The Aquamaster CRP propulsion concept offers to the owner of the vessel the following remarkable benefits compared to a conventional system: increased cargo/passenger capacity of 2-10 percent; fuel saving of 5-10 percent; lower machinery investment costs of 10-20 percent; less vibration; and lower noise level.

The unique Volvo Penta Duoprop consists of a gear which drives the two counter-rotating propellers—where the shaft of the rear propeller rotates inside that of the front propeller.

The reported advantages of the DP drive in combination with powerful V6 and V8 gasoline engines or high-speed diesels, compared with corresponding engines and single propeller drives, are as follows: Acceleration is up to 30 percent faster. Top speeds are up to two knots higher. At the same time, fuel consumption is 10-12 percent lower at cruising speed.

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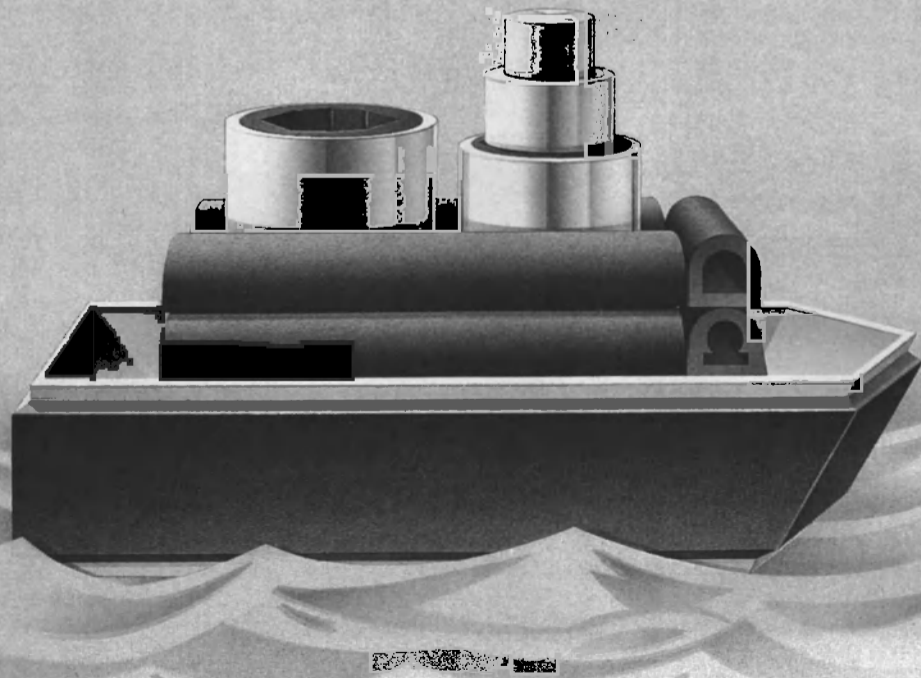
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Hitachi Zosen Delivers HZ-B&W-Powered VLCC Nichiryu



The HZ-B&W-powered Nichiryu, recently delivered by Hitachi Zosen, has cargo-handling equipment, valves and tank level gauges that can all be remotely controlled and monitored from the cargo control room.

Hitachi Zosen's Ariake Works recently completed and delivered the Nichiryu, a 242,416-dwt VLCC. The 1,063-foot-long by 190.2-foot beam vessel, built for Golden Sunrise Navigation S.A., is a sister ship of the Nichioh, completed and delivered in September 1989, and is operated by the same company, Nissho Shipping Co., Ltd.

Principal features of the Nichiryu include a newly developed SSD (Hitachi Zosen Super Stream Duct), greatly improving propulsion efficiency; and stainless steel pipes and aluminum-brass pipes, as well as pipe bands of the same materials, are used in the hydraulic oil piping system on the upper deck for further enhancement of the system's corrosion resistance.

The ship is powered by a Hitachi Zosen-B&W 8S80MCE diesel engine with a maximum continuous output of 24,220 hp by 69.4 rpm, producing a speed of 15 knots. Thanks to the great derating of this highly fuel-efficient engine and the best tuning obtained by employing a highly efficient supercharger, this VLCC offers an unprecedentedly low rate of fuel oil consumption.

To ensure comfortable and reliable navigation with a small crew, the following automation and labor-saving measures have been incorporated, along with many innovative ideas for enhancing reliability and safety: NK's machinery automation notation MO A obtained; equipment allowing 10-year non-open inspection of the propeller shaft; electrohydraulically driven mooring winch equipped with a remote control device; tug-line master and heaving winch; electrohydraulically driven deck crane; and newest-type loadmeter calculator (Loadmeter 700).

For free literature detailing the facilities and capabilities of Hitachi Zosen,

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MarAd Terminates All War Policies On MSC Vessels In Gulf Conflict

At the request of the Military Sealift Command, the Maritime Administration is terminating all war-risk policies placed in response to Operation Desert Shield and

Desert Storm. The termination became effective on September 30, 1991.

On August 20, 1990, MarAd received authority from the President under Section 1205 of Title XII of the Merchant Marine Act, 1936, to issue war risk policies on vessels in the employ of the MSC in support of Operation Desert Shield.

Under that authority, MarAd wrote policies on 388 vessels for a total coverage in excess of \$20 billion.

Samsung To Build Two Aframax Double-Hull Tankers Worth \$120 Million

Conoco, the U.S. oil company, has confirmed a provisional order in South Korea for two Aframax double-hull tankers worth just under \$120 million.

Following an earlier letter of intent from the owner, contracts have been signed with Samsung Ship-

building and Heavy Industries for delivery of the ships in the third and fourth quarters of 1993.

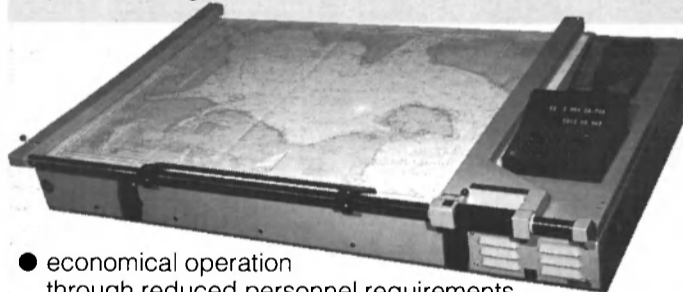
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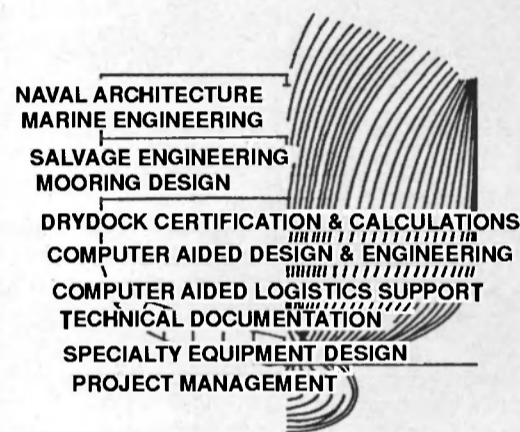


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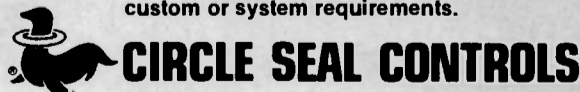
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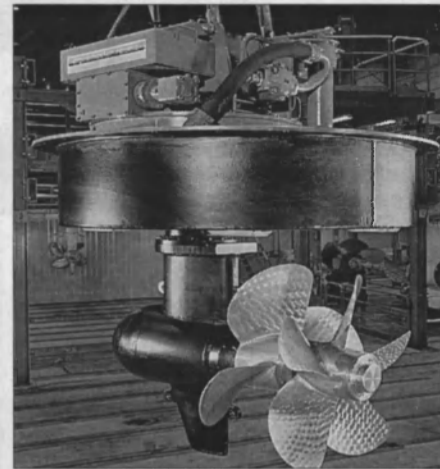
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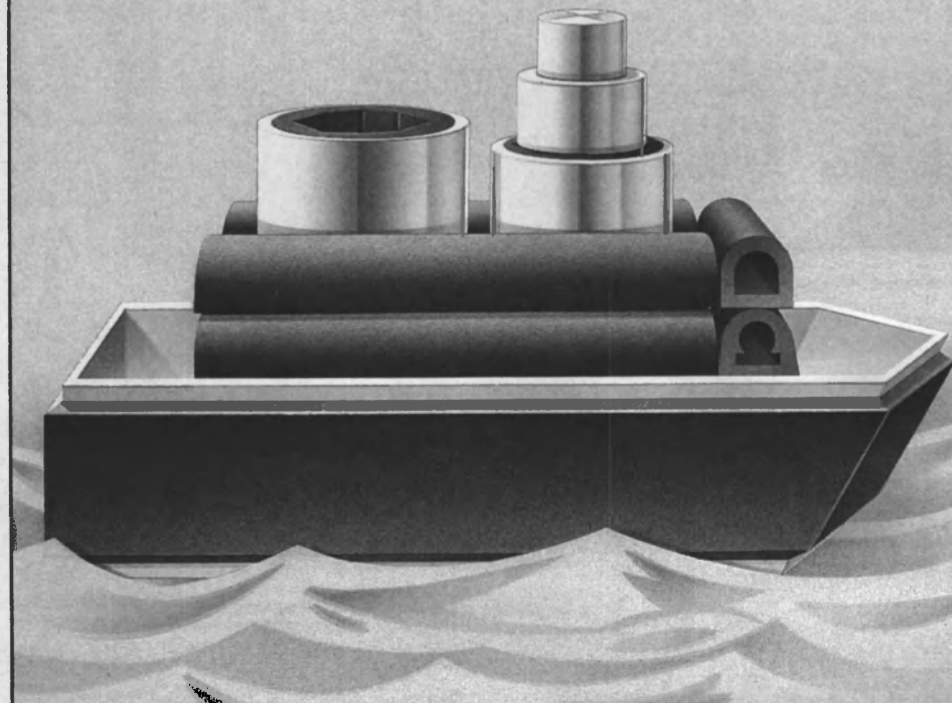
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OPA '90 Anniversary Finds Tanker Barge Industry Coping With Change

With the recent passing of the first anniversary of the Oil Pollution Act of 1990, the tanker barge industry, which transports one-third of all the oil consumed in the United States, has begun to cope with change.

Even before the Coast Guard has issued the formal regulations to implement the law, which was enacted in the wake of the 1989 Valdez oil spill in Alaska, the transformation of the inland and coastal marine transportation industry has begun. Unwilling to risk the compounded liability imposed by the 1990 act's strict new standards aimed at protecting the environment, some coastal tanker and inland barge companies are being sold off by corporate parents.

Included in those risks are federal liability limits that have ballooned 700 percent, and the withdrawal of federal preemption of state damage awards, which means that state courts can hold spillers liable for unlimited amounts.

Domestic tanker barge companies, meanwhile, face much higher operating costs, a factor that many industry observers say will lead to a mass consolidation.

Ashland Oil Co. recently sold its Great Lakes tanker operation to a U.S. and Canadian investor group headed by Montreal-based Enerchem Transport Inc. Robert Kiefer, transportation and supply group vice president at Ashland Oil, said the two-ship operation was sold because of the unlimited liability the ships face in several states along the Great Lakes.

Mr. Kiefer, like many in his industry, anticipates a consolidation. The Oil Pollution Act of 1990, he said, is more devastating to inland companies because you have a lot of mom-and-pop companies. "In places like the Canawaha River in West Virginia, we use primarily outside companies to tramp up it. I don't know what these companies are going to do."

Ashland charters about 20 percent of the 300 barges it operates from other owners.

Recently, near Port Arthur, Texas, where two states that weathered the oil bust are joined—Louisiana and Texas—New York-based Sequa Corp. put up for sale its profitable tanker barge fleet, Sabine Towing and Transportation Co.

Sabine employs 479 people and

Tanker Barge Fleet Profile

- The tanker barge industry transports an estimated 30% of all the petroleum consumed in the United States. U.S. petroleum consumption is estimated at 17 million barrels a day.
 - Number of U.S. -flag tanker barges: 3,978 vessels, ranging in length from 100 to 600 feet.
 - Barges with double hulls: estimated at 62% to 75% of existing fleet.
 - Cost of new construction: inland or coastal barge, \$1.2 million; oceangoing barge, \$3 million.
 - Cost of adding a double hull: \$750,000.*
 - Cost of adding only double bottom or double sides: \$250,000.
 - Ordinary tanker barge life expectancy: 25 years. (Partial retrofitting can add up to 15 more years.)
- *Estimated cost of retrofitting a double hull onto an existing single-hull tanker barge, 297 feet long by 52 feet wide.

SOURCE: Industry statistics

operates 38 tanker barges, 24 harbor tugs and push boats and six coastal tankers around the Gulf of Mexico and along the Atlantic Coast. Its single-hull tanker barge fleet has a hauling capacity of about 800,000

barrels.

Sabine executives say the unlimited liability imposed on petroleum carriers by 36 states contributed to Sequa's decision to sell Sabine.

McDermott Completes Fabrication Of Alabama Gas Production Platform

McDermott Marine Construction recently completed the fabrication and installation of a gas production platform and pipeline for Mobil Oil in the Gulf of Mexico at Mobile Block 823-A. It is the first permanent offshore structure in the Gulf off the coast of Alabama.

The jacket and deck were fabri-

cated at McDermott's facility in Amelia, La. McDermott's DB 28 installed the jacket in 44 feet of water and also laid the pipeline from Sand Island, Ala. McDermott's 5,000-ton shear leg crane set the 2,400-ton deck section.

The platform is expected to produce 140 million to 150 million cubic feet of gas per day.

McDermott Marine Construction is a major operating unit of McDermott International, a leading worldwide energy services company.



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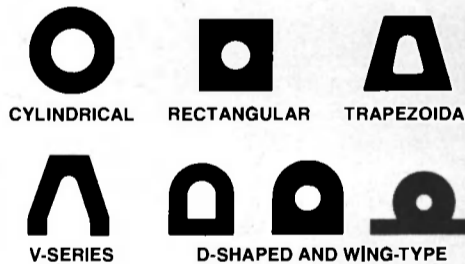
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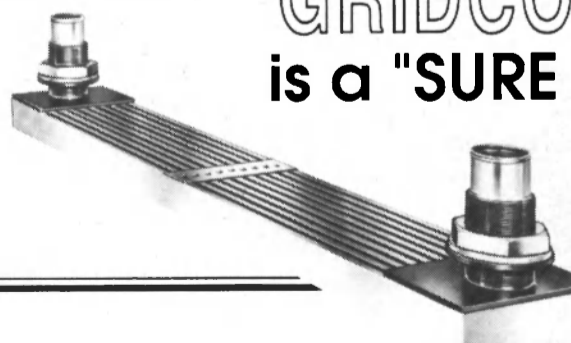
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COMSAT Laboratories Receives Army Contract

A team of COMSAT Laboratories, Magnavox, and Marconi Secure Radio of the U.K., has been awarded a contract by the U.S. Army Communications-Electronics Command (CEDOM) for the development and limited production of the Universal Modem System (UMS).

The COMSAT portion of the contract is valued at more than \$7 million. As a subcontractor to the prime contractor Magnavox, COMSAT Laboratories will be responsible for the development of network and control software within the Interim System Planning Computer (ISPC) portion of the UMS.

The UMS is intended to be the signal processing element of super high frequency ground, airborne and shipboard terminals which commu-

nicate through certain U.S., U.K., French and NATO military satellites.

COMSAT is a publicly traded corporation providing international and domestic fixed and mobile communications and services and conducts research on advanced communications techniques.

For free literature on COMSAT Laboratories,

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DLI Opens East Coast Sales Office—Receives \$11 Million MSC Contract

DLI Engineering Corporation of Bainbridge Island, Wash., has announced the opening of its new engineering and sales office in Annapolis, Md.

The opening of the new site reflects DLI's continued expansion in the machinery condition monitoring market in the eastern U.S., and its recent \$11.6 million contract enables it to provide monitoring equipment, services and software to the Military Sealift Command (MSC) in Washington, D.C.

Now in its 26th year, DLI Engineering Corporation is a worldwide supplier of machinery condition analysis services, portable and fixed vibration monitoring systems and expert system software for commercial and military clients.

For more information,

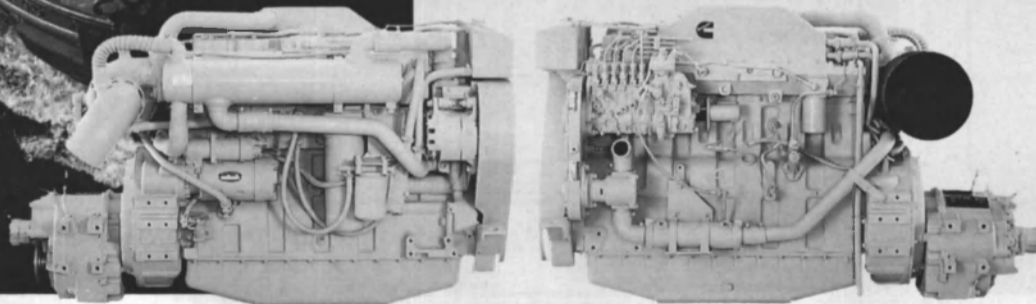
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World Ship Orders Up In Second Quarter

The most recent quarterly statistics show a significant upturn in world shipbuilding activity after a drop-off in activity at the end of last year, especially in the tanker sector.

According to the quarterly shipbuilding return published by Lloyd's Register, the total world order book increased by 1.8 million gross tons (gt) to 39.6 million gt at the end of June 1991, compared with the level three months earlier. Uncommenced orders increased by 1.2 million gt to 25.4 million gt (1,202 ships), while tonnage under construction at 14.2 million gt (1,222 ships) was 0.5 million gt higher than at the end of March 1991.

New orders received during the second quarter amounted to 5.3 million gt, compared with 3.2 million gt in the first quarter of this year and 1.9 million gt in the fourth quarter of 1990.

The total tanker order book increased by 1.5 million gt to 20.7 million gt, or 52.3 percent of the total order book. Tanker tonnage under construction totaled 6.6 million gt, while uncommenced orders totaled 14.1 million gt.

NORSHIPCO Wins \$8.3 Million Overhaul Of Navy Drydock

Norfolk Shipbuilding & Drydock Corp. (NORSHIPCO) of Norfolk, Va., was recently awarded an \$8.3 million contract for the regular overhaul of the medium auxiliary repair drydock USS Shippingport (ARDM-4). The contract, N00024-85-H-8195, was awarded by the Naval Sea Systems Command, Washington, D.C.

Crowley Maritime Seeks \$450 Million In Ship Finance Guarantees From MarAd

Oakland Firm Plans To Build 10 Double-Hull Tankers

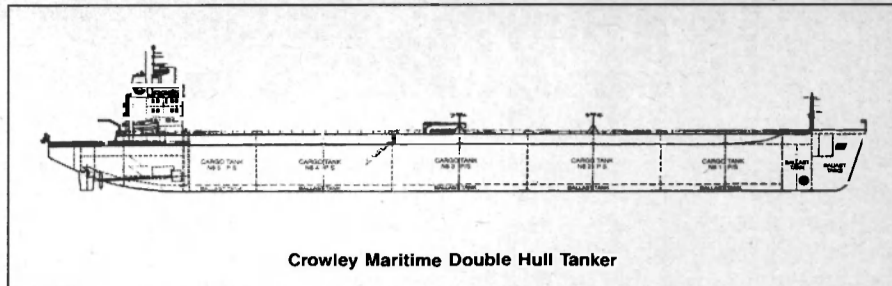
Crowley Maritime Corporation (CMC) recently submitted to the Maritime Administration an application for ship financing guarantees totaling \$450 million, under Title XI of the Merchant Marine Act of 1936. The Oakland-based marine transportation and related services firm is apparently planning to build 10 double-hull tankers at a total cost of \$600 million.

CMC plans call for the construction and operation of ten 42,000-dwt double-hull tankers for the domestic petroleum transportation trade. The company has applied for U.S. Government guarantees to finance 75 percent of the estimated total cost of \$600 million for all 10 ships. The financing of this construction

by private enterprise is extremely difficult and cannot be arranged without the conventional Title XI mortgage insurance guarantee by the U.S. Government.

Marketing studies conducted by the company indicate a need for the ships in the 1990s, in part because of the expected retirement of a substantial portion of the current U.S. fleet due to the requirements of the Oil Pollution Act of 1990 (OPA 90). The company has been transporting petroleum products in barges since 1939 and now operates approximately 60 bulk petroleum barges, each with capacities ranging up to 150,000 barrels.

In a detailed statement, **Thomas B. Crowley**, chairman and chief



Crowley Maritime Double Hull Tanker

executive officer of CMC, said that the tankers would be built in the U.S., owned by American citizens and manned by American seamen for the domestic trade under the Jones Act.

At first report, CMC had planned to build the vessels at railcar manufacturing facilities. Now, however, the firm has changed its mind and plans to open the bidding to U.S. shipyards.

At present, Mr. Crowley said the firm is negotiating with two yards, one on the West Coast and one in the Gulf for the construction of the vessels.

In underscoring the importance of developing a new generation of tanker, Mr. Crowley said, "There are tremendous volumes of refined and semi-refined petroleum products moving in the coastwise and intercoastal trades of the United States. If these products are to continue to move by water, there will be many vessels that will have to be built in the coming years. The present fleet of single hull tankers is gradually declining because of age and the provisions of OPA 90, so that immediate action should be taken now."

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IDB-A Activates West Coast Inmarsat Earth Stations

Last May, the U.S Federal Communications Commission granted IDB Aero-Nautical (IDB-A) the license to provide mobile satellite services to ships. In its ruling, the bureau asserted that allowing IDB-A to enter the market would promote the FCC's goal of increasing aeronautical mobile competition.

Since then, IDB-A has become the first non-signatory carrier to build coast earth stations to address Inmarsat. IDB-A has activated dual Inmarsat Standard A earth stations at Niles Canyon, Calif., and is nearing completion of a third at Staten Island, N.Y.

IDB-A's two earth stations in California address the Pacific and Western Atlantic Ocean regions, and their earth station in New York will address the Eastern Atlantic starting this November. In California, on-line transmission began the first week of September. The New York

installation is expected to be commissioned shortly.

During IDB-A's initial interim service period, which started last January, more than 700 vessels worldwide registered with IDB-A for service, according to the company. Now, over 14,000 vessels can tap into IDB-A's permanent network.

IDB-A's vice president of maritime sales **Bob Eichberg** commented, "Our state-of-the-art facilities and competitive prices should attract many users to our Inmarsat services."

With the on-schedule completion of their three stations, IDB-A has begun providing its permanent worldwide service. In addition to standard, on-board voice, fax and telex services, IDB-A has added enhanced features like shore-to-ship calling. Automatic telephone services include normal station-to-sta-



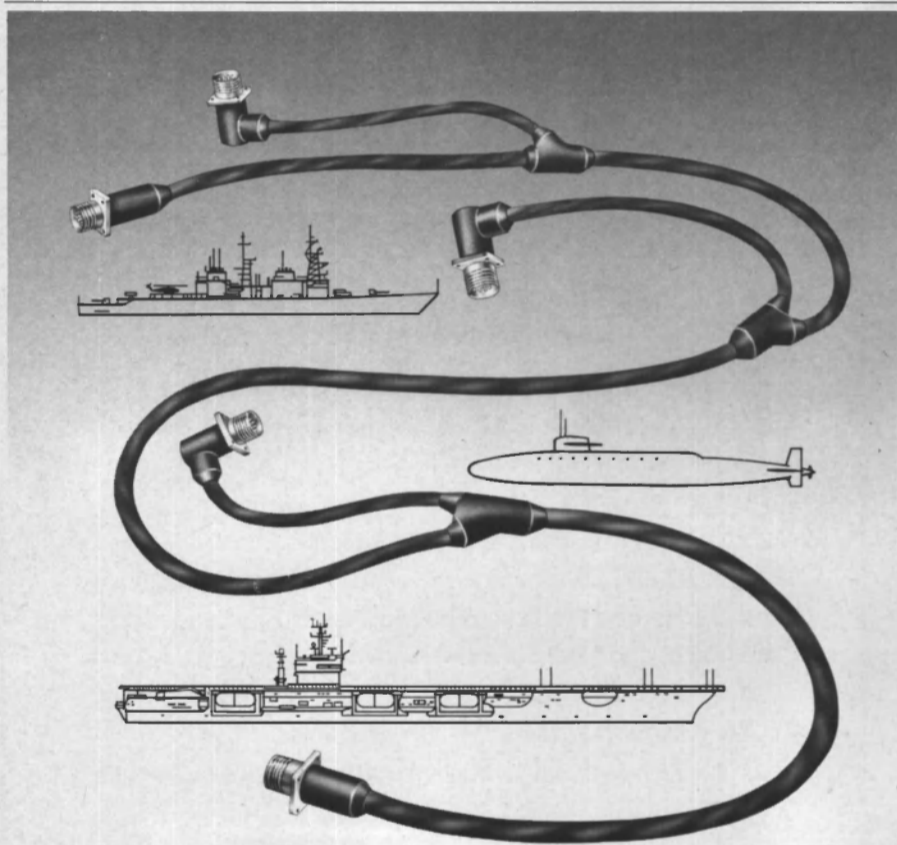
IDB Aero-Nautical's new dual earth stations at Niles Canyon, Calif., started routing maritime traffic this past September via Inmarsat from the Pacific and Western Atlantic Ocean Regions.

tion calls as well as credit card billed calls.

In addition, both X.25 and X.400 packet switching services are available. IDB-A is also the exclusive distributor of "Sprintmail," Sprint's E-mail messaging service, to the

maritime and aeronautical industries. High-speed point-to-point data transmission for file transfer, news, weather and other enhanced services are now offered, as well as private line services.

(continued)



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Maritime Reporter/Engineering News

Enhanced telex services have been added as well, including telex transmission to fax or E-mail and multiple address transmission from one telex. Early next year, IDB-A's network partner OTC-Australia will modify their coast station in Perth to accept IDB's Inmarsat ID number.

A number of companies have entered ventures with IDB-A:

World Communications Systems is supplying IDB-A with a satellite communications integrator. The WCS 2XA-6 will allow a wide variety of two-wire devices to interface with all two-wire and many four-wire satcom terminals.

New Orleans Teleport is acting as IDB-A's Gulf Coast agent for the transport sector, offering easy-access shore-to-ship services for IDB-A customers.

CruisePhone is teaming with IDB-A to offer an integrated cellular/satellite communications service to the Caribbean cruise industry. Star Clippers and Regency Cruise Lines have already signed on.

Morsviazspudnik assists potential IDB-A customers by offering a "one-stop shopping" approach for Inmarsat A mobile terminals in remote areas of the USSR.

IDB Aero-Nautical, headquartered in Rockville, Md., operates sales offices in Houston, New York and London.

For free literature detailing the satellite communications services of IDB-A,

Circle 54 on Reader Service Card

Henschel Awarded Carrier Contract

Henschel, Inc. has been awarded a contract for production of the central amplifier announcing system equipment for U.S. Navy's two newest aircraft carriers, USS John C. Stennis (CVN-74) and USS United States (CVN-75).

The systems will provide voice and emergency alarm signal communications to the aircraft carrier crew's living quarters, hanger bays, machinery and engineering spaces, as well as the flight decks and deck walkways.

Delivery of the new equipment is scheduled to begin in the second quarter of 1992.

Henschel is a member of the SPD Technologies family of companies, and a premier manufacturer of ship control and interior communications systems.

For further information and free literature,

Circle 91 on Reader Service Card

Wooster Products Offers Full Line Of Stair Treads For Passenger Vessels

Wooster Products, Inc., Wooster, Ohio, which has supplied anti-slip

safety stair and walkway products for over 70 years, offers its Stairmaster line of safety renovation stair treads for use in the marine industry, as well as land-based applications.

In the marine field, Wooster Products has supplied a number of Navy and Coast Guard vessels and commercial boats, such as ferries, cruise vessels and casino boats, with Stairmaster safety renovation stair treads. One recent delivery was to

the 387-foot riverboat casino Dubuque Casino Belle, built by Patti Shipyard for Robert's River Rides for operation out of Dubuque, Iowa. Other notable passenger vessel and riverboat casino deliveries include the President, Pride of Texas, Belle of St. Louis, Diamond Lady, Emerald Lady and Golden Lady.

Each order is shipped from Wooster Products custom made and ready to install. The durable stair treads are made of marine grade

extruded aluminum with abrasive filler and are available in many colors in order to match a wide variety of vessel interiors.

The treads promote safety and, according to Wooster Products, are economical to install and offer years of wear.

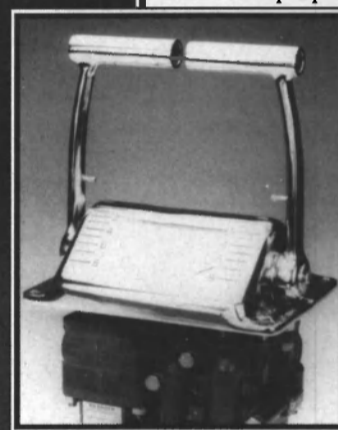
For free literature detailing the Stairmaster line of safety renovation stair treads,

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Circle 285 on Reader Service Card

KaMeWa Now Offers Complete Fixed-Pitch Main Propeller Systems

KaMeWa A.B., Swedish-based manufacturer of ship propulsion systems, has added fixed-pitch propellers to its product range in order to provide customers with a more comprehensive service.

KaMeWa is well known as a con-

trollable-pitch propeller specialist, and is now marketing a range of fixed-pitch propellers designed and tested in the company's marine laboratory.

KaMeWa can now offer customers both complete medium- and large-propeller systems for newbuildings, and replacement fixed-pitch propellers with reduced vibration levels to minimize existing vibration problems.

The range of customer services

includes individual optimum design, model testing, supply of propellers including shafts, sterntube components and bearings.

KaMeWa is part of the Marine Engineering Division of Vickers P.L.C., an international Company based in the U.K., with over 12,000 employees worldwide.

For further information,
Circle 23 on Reader Service Card

Tug Being Built By Main Iron Works To Feature Haley Gears

Marine Gears, Inc., Greenville, Miss., has manufactured two Haley HRV 216 gear units and two Haley HRC 67K torsionally resilient couplings for G&B Marine, Inc., Houma, La., for the new tug M/V Antonio Gambarella.

The tug, owned by Vince Gambarella and Blackie Boudreaux, is being constructed by Main Iron Works, Houma, La. The Haley gears, with a ratio of 7:1, will be mated to two Detroit Diesel 16-149 TI turbocharged engines.

The M/V Antonio Gambarella, with a hull measuring 100 by 28 feet, will see duty in the Gulf of Mexico as a tug utilized by the oil industry. Features include a fire monitor, two generators, and a towing winch.

For free literature detailing the full line of Haley Gears available from Marine Gears,

Circle 59 on Reader Service Card

Classification Societies, E-3 Consortium To Cooperate On Tanker Development

Six classification societies and the E-3 Consortium of European shipbuilders recently signed a cooperation agreement in developing the E-3 Tanker design.

The six classification societies involved in the signing were the American Bureau of Shipping, Bureau Veritas, Det norske Veritas, Lloyd's Register of Shipping, Germanischer Lloyd and Registro Italiano Navale.

The shipbuilding consortium is made of Spain's Astilleros Espanoles, France's Chantiers de l'Atlantique, Italy's Fincantieri and Germany's Bremer Vulkan and HDW. The consortium is developing a so-called E-3 Tanker (European, Economical and Environmental design), a 2-million-barrel-capacity, double-hull very large crude carrier.

It was also reported that the E-3 Consortium and the International Maritime Organization (IMO) are cooperating on investigating safety and prevention of oil pollution at sea.

Working teams are checking suitability of solutions such as double-hull and low mid-deck designs to avoid oil pollution in the event of an accident.

NASSCO Appoints Lyle Director, Assembly/Outfit

National Steel & Shipbuilding, San Diego, Calif., has announced that John A. Lyle has been appointed director of ground assembly and outfit. In this new position, Mr. Lyle will have overall responsibility for all stages of steel block construction and advanced outfitting for all new construction programs.

Reliable, efficient marine vacuum toilet systems

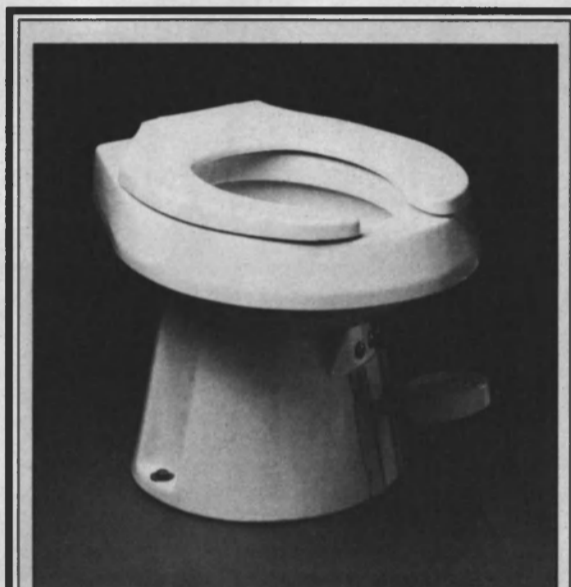
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Circle 304 on Reader Service Card

EUROPORT '91

25th International Maritime Exhibition
7th International Inland Shipping Exhibition
Scheduled For November 12-16 In Amsterdam

When the first Europort exhibition opened its doors 29 years ago, the event marked the realization of the creation of an exclusive platform and forum for use by the maritime industry, situated in the world's largest port, Rotterdam, and supported by a committee of elected members representing a wide range of marine equipment manufacturers and services.

This year's Europort '91 is the 25th International Maritime Exhibition in a series of successful five-day shows. It incorporates the International Inland Shipping Exhibition for the seventh time—this year's theme is "Under Full Power."

Held once every two years, the Europort exhibition incorporates displays showing products and services connected with shipbuilding, fitting out, repair and maintenance, port and dock equipment, communication and navigation equipment, loading/unloading equipment, information, consultancy and design offices, financing and insurance, ships' chandlery, oceanology, fishing, inland navigation, hydraulic engineering contracting, etc.

The exhibition will be open daily from 10 a.m. to 5 p.m., Tuesday, November 12 to Saturday, November 16, except Thursday, November 14, when it will open at 10 a.m. and close at 9 p.m. Almost 500 exhibitors from 21 countries are expected to display their products and services in the seven exhibition halls covering 46,000 square meters.

2nd World Shipping Conference Held In Conjunction

To coincide with the start of the Europort Exhibition in Amsterdam on November 12, the Financial Times Conference Organization will stage its World Shipping Conference at the RAI International Congress Center in Amsterdam. This will be the second major conference on world shipping that the Financial Times has presented in Amsterdam. The first FT conference event was held in association with Europort '89.

The conference program of World Shipping 91 will follow the same successful formula of the previous FT conference in 1989. Leading figures from the world shipping industry will be invited to discuss current and future economic trends within the industry and to analyze the impact of technical developments on international ship operation and on shipping companies around the world.

Dredging Conference

On November 13 and 14, the Central Dredging Association (CEDA) and Permanent International Association of Navigation Congresses (PIANC) will hold a conference called "Accessible Harbors." Papers presented during the two-day conference will concern maintaining or improving the accessibility of harbors, while at



the same time avoiding impeding the free flow of traffic within the ports and their approaches.

The five sessions will cover different aspects of this theme, aiming to show proposed or actual solutions based on construction techniques, the design and dredging of access channels, the effects of dredging and navigation on erosion and turbidity and the prediction and solution of situation problems. Papers will cover cost effectiveness, equipment automation and instrumentation, positioning and environmental considerations related to the theme.

Other events taking place on November 14 at Europort include the annual meeting of the Netherlands Shipbuilding Industry Association (open to members only), the Maritime Technology Meeting Day, organized by the Netherlands Association of Shipping Engineers, and the annual meeting of the Royal Netherlands Shipowners' Association (open to members only). Also beginning on November 14 and continuing on November 15 will be "Motor 2000," organized by the Association of Importers of Combustion Engines, Holland Shipbuilding and RAI Gebouw bv, focusing on engines and related products.

Europort was launched in Rotterdam, the world's largest port, as an annual event, providing a stage for the Netherlands maritime industry from which it could present itself to customers from all over the world. The initiative proved an immediate success and managed to attract substantial attention and interest from the maritime industry. Initially, the event was primarily supported by the Netherlands and neighboring countries, but soon after the first exhibition, the international element participating in the event rapidly increased in importance.

The formula of a dedicated exhibition and a congress running concurrently presents the opportunity to exchange ideas and immediately compare notes correlating between theory and practice. This year's congress, designated "World Shipping 91," was orga-

nized by the Financial Times.

When the Rotterdam exhibition facilities began to restrict Europort's natural growth and outside exhibition space was filled to capacity, the event was moved to Amsterdam's International Exhibition and Congress Center RAI, which since then, has been its pied-a-terre. Amsterdam, even more so than Rotterdam, provides exhibitors, visitors and delegates with a near unlimited choice of hotel accommodations, and short lines of communication and transportation, as motorways, railroad lines and Amsterdam's international airport, Schiphol, are only minutes away from the RAI. Soon Europort resumed its growth supported by RAI logistics and it did not come as a surprise when RAI itself took over the Europort organization in 1983 from event founder **Allen Johnson**.

Since the inception of Europort, the marine industry has experienced a substantial amount of technological growth and sophistication such as the introduction of sectional building and the use of new materials, the birth of the low profile ship, the medium-speed and low-speed diesel engine, and the revival of sailing power, the introduction of innovative maintenance programs, and the introduction of self-polishing anti-fouling to extend periods between drydockings. Many of these and other technological innovations were topics of discussion at Europort before their introduction in the marine sector.

Since the first Europort in 1962, a radical evolution has taken place in the training and education of ships' officers, especially in the Netherlands. From the simple master/mate/engineer concept, the new maritime officer of today, a veritable Jack-of-all-trades, has been born. Although educational changes are mostly prepared within the confines of universities and polytechnical institutes, information emanating from events such as Europort often contributes to such preparations and at the same time tries, with varying degrees of success, to ensure that the industry can in the end employ the products of education without spending too much time on reeducation and practical training.

Europort has been a consistent platform from where new initiatives and impulses have been and are being launched, existing activities are discussed and refined and products are shown to the public in static or dynamic displays.

Europort is a showcase for products new and old, a yardstick for the industry's health and resilience and the interface between the world of maritime science and the world of trade and commerce.

Discussions during and after Congressional sessions stand at the cradle of many initiatives which enabled the industry to cope with the need to cut capacity while at the same time efficiency had to be increased to be able to remain competitive and introduce Quality Assurance programs.

For further information on Europort 91, contact: RAI Gebouw bv, Europaplein, 1078 GZ Amsterdam, The Netherlands; telephone: +31 (0) 20 549 12 12; fax: +31 (0) 20 (6) 46 44 69.

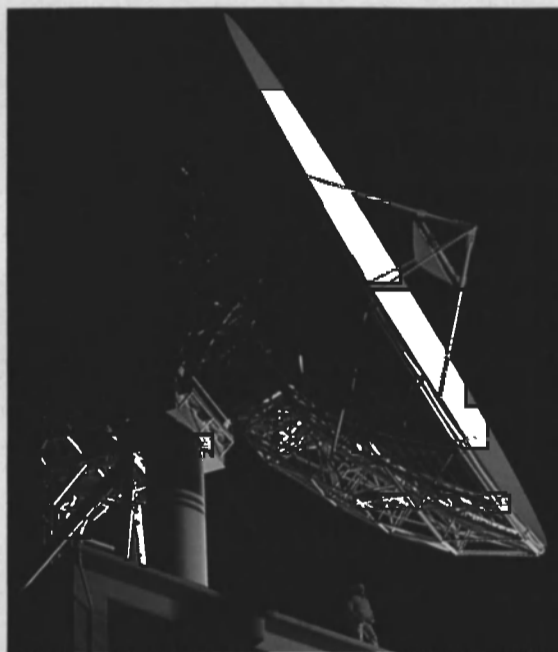
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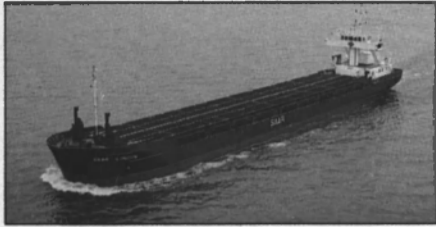
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IDB-A's interim Indian Ocean service via Perth (CES ID 02) remains in effect at \$9.97 per minute peak, \$8.04 off-peak, and \$5.80 telex. (Call 1-800-IDB-AERO to register.) IDB-A's permanent service by Perth using CESID 11 is scheduled for early 1992. ■ IDB-A will introduce AOR-E service through its Staten Island CES in November 1991. ■ IDB-A also offers shore-to-ship service in the U.S. at \$8.74 per minute by dialing 1-800-800-8282. ■ Note: INMARSAT has assigned IDB-A the Expanded ID Numbers 13-1 (Octal) and 11-1 (Decimal) which can also be used. However, Decimal 11/Octal 13 will default to IDB-A until the system expansion is complete.

Damen Delivers Deutz-Powered M/S Saar London



The Saar London's hydraulically movable wheelhouse allows the vessel to pass bridges with low air draft.

Damen Shipyards, the Netherlands, has delivered the 17th vessel in succession out of the Damen Combi Coaster 125 range, the M/S Saar London, which was recently handed over to Rexroth Schiffahrts K.G.

The vessel is intended for sea and river transport of containers as well as bulk cargo.

The M/S Saar London has an overall length of 289.7 feet, molded beam of 41 feet and maximum draft of approximately 14.27 feet. Propulsion is by an MWM Deutz diesel engine type 6M628 with an output of 1,020 kw at 900 rpm (MCR) producing a trial speed of approximately 11.4 knots.

Auxiliary equipment includes two diesel generator sets, Caterpillar 3304 BDI-T, each 100 kva, 50 Hz; Marpol bilge water separator; and Halon firefighting system.

The Germanischer Lloyd-classified Saar London is equipped with heating, ventilation and air conditioning and has accommodations for a crew of eight persons.

For free literature on the facilities and capabilities of Damen Shipyards,

Circle 48 on Reader Service Card

O&K Ships Completely Assembled Ship Loader To Customer In Mauritania

A completely assembled ship loader was recently put on board a special vessel at the Lubeck quay of O&K Orenstein & Koppel AG, Dortmund, Germany. The unit, 50 meters long (about 164 feet) and weighing 320 tons, was being shipped to a customer in Mauritania.

The advantage of complete shipment for the customer is extremely brief on-site installation time, since the unit has already been fully tested at the works. This minimizes time lost in dismantling the old and setting up the new plant. The new loader is to be lowered from the ship directly onto the quay in its working position and then commissioned in the shortest time.

The ship loader is the second unit of this size to be dispatched in one piece by O&K Lubeck. A special ship was chartered for the job from the Dutch Mammoet shipping company.

For more information and free literature on O&K,

Circle 37 on Reader Service Card

Aalborg Ciserv Conference Stresses 'Total Marine Service Concept'

Aalborg Ciserv International A/S (ACI) recently held a conference in Aalborg, Denmark, and Gothenburg, Sweden, for the managing directors and managers of its almost 30 companies around the world.

Aalborg Ciserv International offers shipowners total ship maintenance and service—from mast to keel, and the theme for the 1991 ACI Group conference, "Our Answer to Your Needs," carried a strong customer-oriented attitude. This, along with the ACI Group's "total marine service concept," served as the main core of speeches and discussions during the meeting. The conference also dealt with implementation of the group strategy and with the synergy effect in a group with so diversified activities.

A debate of quality certification

ISO 9001, which may soon apply to all companies in the group, was included as well. The parent company in Aalborg was the first iron industrial company in Denmark to obtain this certification.

The Aalborg Ciserv International Group has around 2,000 employees of which more than half are employed in Aalborg.

For more information and free literature,

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Circle 239 on Reader Service Card

PSRY Increases Share Of Commercial Ship Repair

During its fiscal year completed June 30, 1991, the Portland Ship Repair Yard (PSRY) reported it increased its West Coast share of the commercial ship repair market from 31 percent to 42 percent.

According to **Bruce Robeson**, the port shipyard director, gross sales for the port of Portland and its three ship repair contractors, Cas-

cade General, Inc., Northwest Marine, Inc., and West State, Inc., amounted to about \$270 million as compared to about \$200 million in gross sales for the previous fiscal year.

Although the number of drydocking and berth repairs were down from the previous year, Mr. **Robeson** said the "dollar value" of the jobs PSRY were higher and the work was more complex.

During the 1990-91 fiscal year, PSRY had 74 drydockings and 118

ships were repaired at berth.

Mr. **Robeson** said what is most significant about the shipyard's 42 percent marketshare is Portland has no shipbuilding and limited Navy work.

"We've registered this volume with commercial and non-Navy government work, a smaller amount of Navy work and no shipbuilding."

A large part of Portland Ship Repair Yard's workload is tanker over-haul and repair work.

Alaskan Cruises May Increase If Bills Pass

The number of cruises to Glacier Bay National Park in Alaska could jump significantly under new rules proposed in Congress. If the bills are approved, the number of cruises would increase from 107 to 180 a year.

The changes are contained in bills sponsored by Alaskan Republicans Rep. **Don Young** and Sen. **Frank Murkowski**.

The current limit on cruise ships in the bay was established in 1983 following a study by the National Marine Fisheries Service which showed a dwindling whale population.

Sightings of whales, however, in recent years have increased significantly, according to a spokesman for the National Park Service.

Tourism in the area is booming. Last year, about 154,500 passengers took cruises into Glacier Bay, most embarking from the ports of Seattle, Vancouver and Anchorage.

Cunard, Holland America Westours, Royal Viking Line, Salen Lindblad Cruises, Seven Seas Cruises, and World Explorer Cruises all serve the area.

Marine Gears Supplies Haley Marine Gears For Tug Installations

Marine Gears, Inc., Greenville, Miss., recently supplied sets of Haley Marine Gears for installation aboard three tugs for two separate owners.

One set of Haley FMC (Flywheel Mounted Clutch) RH2835 marine gears, was sold to Avondale Boat Division of Westwego, La., for installation aboard the newly built Capt. Bud Bisso. The gears, rated at 1,950 hp at 900 rpm, were mated to two EMD 16-645-E6 diesel engines and have ratios of 4.9:1. The tug, built for E.N. Bisso & Sons, New Orleans, La., is a versatile dual purpose performer that is primarily used as a ship-docking vessel, with its rounded bow and large rudders, but she is also classed ABS A-1 Full Ocean Service for ocean duty with large fuel and water tanks. The heavy construction of the M/V Capt. Bud Bisso is said to exceed ABS requirements.

A second set of Haley gears, two Haley GMC (Gear Mounted Clutch), 2424 marine gears, were sold to Crescent Towing & Salvage Co., Inc., New Orleans, La., for installation on the M/V G. Shelby Fridichs and the M/V Ned Ferry, ship-handling and docking tugs. These Haley gears were rated 3,000 hp at 1,050 rpm and have a ratio of 4:1. The gears were mated with General Electric 7 FDM12 diesel engines. Both tugs were completely rebuilt and repowered by Main Iron Works, Houma, La.

For free literature detailing the full line of Haley Marine Gears from Marine Gears, Inc.,

Circle 51 on Reader Service Card

First in the fleet...

Devoe ABC® #3

Organotin-Free Ablative Antifouling Coating

First Of Its Kind

ABC #3, the world's first organotin-free ablative antifouling coating was introduced by Devoe in 1983. Since then, it has been applied to the hulls of hundreds of military and commercial vessels - with superior results.

First In Performance and Efficiency

ABC #3 contains no TBT, yet it equals or exceeds the antifouling and self-polishing capabilities of TBT copolymers. And ABC #3 offers these additional economic advantages:

Competitively priced with TBT copolymers.

- **Reduces fuel costs.**

Polishing/ablative action reduces drag, promoting efficient operation.

- **Decreases need for dry-docking.**

Long service life of ABC #3 enables ship owners to extend intervals between costly dry-dockings.

- **Reduces repainting costs.**

Long-term protection means less frequent repainting.

- **Eliminates removal/disposal costs.**

ABC #3 eliminates costs associated with removal/disposal of organotin-contaminated water, paint or grit.

First In Versatility

ABC #3 is easy to use, can be applied over a wide range

of existing antifouling, and provides excellent protection in both static and dynamic conditions.

For more information about ABC #3 and our complete line of high-performance coatings, contact the Devoe Coatings representative near you.



Circle 314 on Reader Service Card

Gulf Craft Delivers Detroit Diesel-Powered Crew/Utility Vessel



The Detroit Diesel-powered Mr. Fats is the latest vessel delivered by Gulf Craft, Patterson, La.

Gulf Craft, Inc. of Patterson, La., recently delivered a 65-foot aluminum crew/utility vessel, the M/V Mr. Fats, to Crescent Ship Service, Inc. of Arabi, La.

The vessel will be used to transport passengers and supplies to ships on the Mississippi River. Because this is a rough and demanding service, an extensive amount of rubber fendering was used around the Mr. Fats, which also passed a stability test that will allow 60 long tons of cargo on its cargo deck.

The Mr. Fats is powered by three Detroit Diesel (keel-cooled) 8V71 N.A. diesel engines turning three 28-inch by 25-inch propellers through Twin Disc 509 (2:1) reverse and reduction gears. The steering is hydraulic and the engine controls are Kobelt model Twin Lever with 43c red jacket cables.

Electrical requirements are supplied by a Perkins-Kato 20-kw diesel generator. The passenger area is air conditioned.

Tankage includes 1,200 gallons of fuel and 100 gallons of potable water.

The M/V Fats is U.S. Coast Guard approved for 10 passengers in River Service.

For free literature detailing the facilities and capabilities of Gulf Craft,

Circle 29 on Reader Service Card

C&M Technology Wins Calibration Services Contract From Navy

C&M Technology, Inc., a designer and manufacturer of control and measurement systems, recently announced the receipt of a \$1.13 million contract from the Naval Underwater Systems Center. Under this contract, C&M Technology will calibrate and repair instruments utilized in testing of advanced antisubmarine warfare systems. The contract spans three years and will require C&M Technology to add eight technicians to its staff.

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MSRC To Purchase Kvaerner Eureka Transfer Pumps

The Marine Spill Response Corporation (MSRC) plans to purchase Kvaerner Eureka high capacity transfer pumps following their suc-

cessful testing during the Valdez oil spill clean up in Prince William Sound.

The CCN-150 model units used in the Prince William Sound were fitted with a debris cutting device called the Kelperator, which enables the pumps to cut up rubbish, seaweed and other debris so that they can work without a filter which would otherwise become clogged. The pump was reportedly able to handle large quantities of oil collected dur-

ing the spill.

The very large capacity of the units, over 3,300 gpm, and their lightweight, 175 pounds, make them an excellent choice for use under severe conditions.

Service and spare parts for the units are readily available in the U.S.

Kvaerner Eureka is a complete marine pump manufacturer offering complete cargo pumping systems for tankers and barges including

control systems, hydraulic systems, engine room pumps and cargo heaters. Other products include incinerators, firefighting systems, ejectors, RO/RO equipment, self-discharging systems for dry bulk cargoes, hatches, inert gas systems, reliquefaction plants, spare parts for Sulzer, MAN B&W and Doxford engines and gas carrier technology.

For further information on Kvaerner Eureka equipment,
Circle 87 on Reader Service Card



When Your Ship Comes In, Who Takes Out The Garbage?

If it's not BFI Shipboard Waste Services,[™] you're missing the boat. Working within the USDA and the U.S. Coast Guard guidelines, BFI was involved in the development of the currently-approved MARPOL Annex V disposal procedures.

From a single box up to tonnage volumes, BFI has the program and required permits in place to solve all your waste disposal problems, including those under APHIS. And once we take posses-

sion, your hands are clean, no ifs, ands or buts.

So, no matter where your ship comes in — at a major port for oceangoing vessels or at a private terminal, yacht basin or other facility — let BFI take out the garbage.

Call us at
1-800-950-2010
for full details
today.

**BFI Shipboard
Waste Services[™]**
BROWNING-FERRIS INDUSTRIES

October, 1991

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with Congress to repeal the cruise

salvage anywhere in the Western +DLA (Dynamic Loading Approach), loadings, standard engineering de-

Fleet Maintenance In The 21st Century

October 22-23, 1991, Virginia Beach, Virginia

A joint symposium called "Fleet Maintenance in the 21st Century," to be co-sponsored by the Tidewater Section of the American Society of Naval Engineers (ASNE) and the Commander in Chief, U.S. Atlantic Fleet, will be held October 22-23, 1991 in the Pavilion Convention Center in Virginia Beach, Va.

Nationally prominent speakers from the military and government will address current issues during luncheons.

A panel of flag/executive level experts from the fleet and private industry will discuss critical aviation, surface and submarine maintenance concerns during TYCOM/industry panel presentations. Over 45 technical papers will be presented by leading government officials, maritime commercial industry executives, professionals and academicians regarding fleet maintenance management, engineering, logistics and training within aviation, surface and submarine communities. Specifically, among the topics that will be presented are "Maintenance Strategies," "Propulsion Plant Condition Assessment," "Vibration Monitoring: Surface Ships," "Overhaul Practices," "Quality Supply Support, SSN 688 Class," and "New Developments in Butterfly Valves."

The quality and variety of exhibits have always been a primary contribution to the success of ASNE's maintenance symposiums. The exhibition area will bring together representatives from combat systems, test and evaluations, aviation support systems, submarines, logistics and support and contracts, as well as surface ships' maintenance.

The symposium will kick-off at 9 a.m. on October 22 with Adm. **Paul D. Miller**, Commander-in-Chief, U.S. Atlantic Fleet, in Pavilion Auditorium A as the keynote speaker. In Auditorium A, three sessions will center around "Maintenance Strategies."

In the Pavilion Room B, "Electronics Testing" will be the subject of three presentations, while in Pavilion Room C and Pavilion Room D, "Overhaul Practices" and "Research/Development I" will be the main topics, respectively. The four sessions will be held in parallel and followed by Admiral **Boorda's** luncheon speech in the Pavilion Center at noon.

In the afternoon of Tuesday, October 22, "Maintenance Developments I" will be the main session in the Auditorium A, while "Maintenance Electronics I" will be the focus



follow the sessions at 3:25 p.m. in the Pavilion Exhibit Hall.

Following the break, the second part of the sessions will continue in their respective meeting areas. A

social gathering will be held from 5-7 p.m. in the Pavilion Exhibit Hall following the sessions.

On October 23, the keynote speaker, Rear Adm. **James E.**

Miller, will open the sessions with a speech in the Pavilion Auditorium A at 8:30 a.m.

In Auditorium A, the two sessions will focus on "Environmental Controls." Rounding out the other topical morning sessions will be "Fleet Maintenance," "Machinery Maintenance," and "Research/Development II."

A morning break period will follow the sessions from 10:35-10:50 a.m. in the Pavilion Exhibit Hall.

"Underwater Maintenance" will start off the afternoon sessions in Auditorium A, while the parallel session in Pavilion Room B will be "Maintenance Management." "Machinery Modernization" will be the topic of the sessions in Pavilion Room C and "Maintenance Materials" in Pavilion Room D.

The Honorable **Sean O'Keefe Sr.**, Comptroller, Department of Defense will be the luncheon speaker at noon in the Pavilion Center.

Following lunch, "Non-Development Items" will be the focus of the sessions in Auditorium A, while "Combat Systems," in Pavilion Room B, "Reserve Fleet," in Pavilion Room C, and "Corrosion Control," in Pavilion Room D, will be the parallel sessions.

Vice Adm. **Jerry O. Tuttle**, USN, Director, Space Command & Control, Office of Chief, Naval Operations, will be the principal speaker at the NDI Presentation at 2:20 p.m. in the Pavilion Auditorium following the sessions.

After a break period, a TYCOM Industry Panel discussion will take place in the Pavilion Auditorium at 3:10 p.m. The event will be moderated by Rear Adm. **D.H. Hines**, CINCLANTFLT Staff, Fleet Maintenance Officer.

Hampton Roads, Va., is the largest Navy complex in the U.S. and the heartland of ship's maintenance. In the 1988 ASNE Fleet Maintenance Symposium, 33 technical papers were presented and there were 100 exhibits, of which 20 were major naval activities. Around 1,500 personnel attended the symposium.

For this year's symposium, over 100 displays and exhibitors are anticipated in the Pavilion Convention Center exhibit hall, with exhibit hours scheduled for 9 a.m. to 7:30 p.m. on Wednesday, October 22, and 8 a.m. to 6 p.m. on Thursday, October 23. Shipbuilders and repairers, marine equipment suppliers, such as valve, propulsion, navigation and communication, and bearing manufacturers, naval engineering and design firms and government agencies

List Of Exhibitors

Company	Booth	Company	Booth
American Bureau of Shipping	18	Jered Brown Brothers	34
American Management Systems	4/5	JJH	7
American Oceanic Coatings Corp.	30	Jo-Kell	65
American Society of Naval Engineers	2	John J. McMullen Associates	111
Analysis & Technology	24	Jonathan Corp.	82
Aqua-Chem	58	Labarge	12
ATIS	39	Lapeyre Stair	38
BFGoodrich	46	Life Cycle Engineering	92
BMT International	110	Lokring Corp.	57
CDI Marine Company	51	Management Systems	
Cla-Val Company	55	Applications	94
Commander/NAVAIRLANT	107	Maritime Reporter &	
Commander, NAVELEX	27	Engineering News	63
Commander, NAVSEACENLANT	75	Metritape	50
Commander, NAVSEA, Combat		National Standards Association	112
Systems Engineering Station	26	Naval Research Laboratory	47/48
Commander, NAVSSES Philadelphia	36	NAVSEA Shipbuilding	
Commander, Norfolk Naval Shipyard	14	Support Office	43
Commander, TRALANT	106	Ocean City Research Co.	31
Compressor Engineering Corp.	49	Olympus Corp. IFD	83
Copy Data Corp.	1	PERA CV	98
David Taylor Research Center	19/20	PERA Surface (Atlantic)	10
Deanco	70	QED Systems, Inc.	22
Defense Fire Protection Assoc.	9	Radio Holland	66
Deutsch Metal Components	56	Raytheon Marine Co.	109
Diversified Technology	71	Rix Industries	11
DLI Engineering	76	SAIC-AMSEC	21
Dreadnought Marine	59	Schroder Brothers	62
Dresser-Rand	8	Seacoast Electric Co.	85/86
Electric Motor & Contracting Co.	25	SPD Technologies	93
Engineering Visions	77	SUPSHIP, Newport News	105
FMC Corp.	53/54	Systems Engineering Corp.	3
Furmanite, Inc.	29	Tate Andale	84
General Electric	78-81, 88-91	Thordon Bearings	37

New Washington State Early Spill Response System Implemented

A comprehensive maritime industry early response system in the

protection of our marine environment," said **Hal Schuyler**, chairman of the Washington State Maritime Commission. "We have designed our response system to meet the most stringent mobilization requirements."

Nine newly built spill response

awarded to Foss Environmental Services, Seattle, to serve as the commission's primary oil spill cleanup contractor in the Puget Sound, Grays Harbor and Willapa Bay areas. Foss Environmental was the lowest of three qualified bidders.

erators do not have their own cleanup contractors or are not members of a Washington cleanup cooperative.

The 32-foot spill response vessels are capable of responding to a marine cargo or fuel oil spill at a speed of 35 knots. Each vessel carries 1,000 feet of oil containment boom.

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A 20-minute afternoon break will



follow the sessions at 3:25 p.m. in the Pavilion Exhibit Hall.

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social gathering will be held from 5-7 p.m. in the Pavilion Exhibit Hall following the sessions.

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For registration information, contact: ASNE Joint Symposium, P.O. Box 1839, Norfolk, Va. 23501; telephone: (804) 640-7140; or fax: (804) 640-7227.

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Commander, NAVSEA, Combat		National Standards Association	112
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General Electric	78-81,88-91	Thordon Bearings	37
Hevi-Duty/Nelson	6	Tite-Flex	33
IMO Industries	35	U.S. Naval Institute	87
Industrial Marine Service	42	Ultra Poly	64
Integrated Systems Analysis	15	Vitro Corp.	23
Intergaph	60	Westinghouse Electric Corp.	32
J.A. Moody	61	Worldwide Marine	28

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So, no matter where your ship comes in — at a major port for oceangoing vessels or at a private terminal, yacht basin or other facility — let BFI take out the garbage.

Call us at
1-800-950-2010
for full details
today.

**BFI Shipboard
Waste Services™**
BROWNING-FERRIS INDUSTRIES

President Bush Indicates Support To Repeal Excise Tax On Boats

President **George Bush** recently indicated his willingness to work with Congress to repeal the excise tax on boats. Responding to a reporter's comment during a recent press conference that the tax had hurt the local boatbuilding industry and to a question about his stance on repeal, the President said, "We would be willing to review that provided we do not again bust the [1990] budget agreement. And I think there's some active discussion."

Expressing a willingness to revisit the boat tax issue, Mr. **Bush** explained the levy was designed to tax rich consumers, but added, "What they forgot is, there's a lot of not-so-rich guys that build these boats ... so I think there's more understanding on this [issue] in the Congress right now and I'd like to find a way to get relief there." Aware that headlines might accuse him of favoring the wealthy, Mr. **Bush** said, "But I'm talking jobs; I'm thinking of the people who are thrown out of work in these shipyards. And I would like to find a substitute, a way that we can accommodate that interest."

Members of the recreational boating industry called President **Bush's** position for elimination of the tax an important step forward. National Marine Manufacturers Association president **Jeff Napier** said, "Support from President **Bush** is a clear sign to Congress, the boat manufacturing industry, and all Americans that it is time to put the 19,000 men and women who have already lost their jobs because of the tax back to work." He added, "The sooner we put these people back to work building boats, the sooner the boat manufacturing industry can begin contributing to the economic recovery of the nation."

The boat excise tax was enacted as part of the Budget Reconciliation Act of 1990 and went into effect January 1, 1991. It applies to all new boats and is assessed on that part of the price which exceeds \$100,000.

E.N. Bisso Awarded Long-Distance Tow

The long-distance towing division of E.N. Bisso and Son, Inc., New Orleans, La., has received a major offshore assignment.

The 3,200-hp tug A.T. Higgins has undertaken the tow of a new 195-foot barge launched at Moss Point, Miss., to its destination at the Port of Seattle. The barge, owned by Coast Enterprises in California, carries a cargo of scientific testing equipment.

The New Orleans-based tug completed passage through the Panama Canal in early August, entering the Pacific Ocean on its way up the West Coast to Seattle. Capt. **Ralph Diaz**,

general manager, explained that "Although our primary business is harbor tugs, our three long-distance vessels are all Coast Guard and ABS-approved for offshore work." He said the vessels are available for ship, rig or barge towing as well as salvage anywhere in the Western Hemisphere.

One of the oldest tug and marine contracting firms in the Port of New Orleans, E.N. Bisso operates a fleet of 12 tugs and two barge-mounted cranes.

ABS First Society To Offer New Class Tanker Notation

The American Bureau of Shipping (ABS) will offer a new class notation for tankers. The notation, +DLA (Dynamic Loading Approach), will be optional for tanker owners who opt to apply a dynamic loading analysis technique to the design of a tanker, which results in scantlings (i.e., structural members) exceeding those specified in the ABS "Rules for

Building and Classing Steel Vessels" (known as the Steel Vessel Rules).

The criteria for determining the hull scantlings as contained in the ABS Steel Vessel Rules have been established incorporating nominal loadings, standard engineering design equations, and satisfactory service experience. These criteria are a proven and recognized basis for the design of tanker scantlings and are applied for granting the ABS Hull Classification +AL.

Out here,



business depends on knowing the lay of the land.

AT&T High Seas Radiotelephone Service is the shortest distance from out here to back there. And that means it can help you take care of business better.

It's easy to check in from ship to shore. The *AT&T High Seas* operator can connect you to any telephone in the world. Quickly, reliably, economically.

And to reach a ship at sea to tell them the lay of the land, simply dial 1 800 SEA CALL.

*Use this number to book a call. The call itself is not free of charge.



AT&T

The right choice.

New Washington State Early Spill Reponse System Implemented

A comprehensive maritime industry early response system in the event of an oil spill was recently implemented in Washington State's inland and coastal waters.

"The ability to respond within the first minutes and hours following an incident is key to the successful

protection of our marine environment," said Hal Schuyler, chairman of the Washington State Maritime Commission. "We have designed our response system to meet the most stringent mobilization requirements."

Nine newly built spill response vessels and a variety of other spill cleanup equipment are being delivered for use under a spill response contract that the commission recently awarded.

The three-year contract was

awarded to Foss Environmental Services, Seattle, to serve as the commission's primary oil spill cleanup contractor in the Puget Sound, Grays Harbor and Willapa Bay areas. Foss Environmental was the lowest of three qualified bidders.

Under the new Washington State spill response law, the Maritime Commission's cleanup contractor responds to cleanup requirements of all commercial vessels exceeding 300 gross tons whose owners or op-

erators do not have their own cleanup contractors or are not members of a Washington cleanup cooperative.

The 32-foot spill response vessels are capable of responding to a marine cargo or fuel oil spill at a speed of 35 knots. Each vessel carries 1,000 feet of oil containment boom.

As provided by the commission's contract, Foss Environmental is stationing the vessels at Seattle, Tacoma, Everett, Whidbey Island, Bellingham, Port Angeles, Seiku, Westport and South Bend. In addition, portable skimmers, extra containment booms and other equipment are being positioned at these locations under terms of the contract.

Foss Environmental is required by the commission to provide 22 standby personnel so that the vessels and other equipment can be rapidly mobilized. Around the clock, these 22 persons must be able to arrive at their assigned equipment within two hours of notification.

The commission also has contracted with the Marine Exchange of Puget Sound to provide emergency communications and secretarial, data processing and billing support. The Marine Exchange will maintain a database on vessel accidents—information that state law requires the commission to provide.

Earlier, the commission contracted with Foss Environmental to prepare an oil spill response contingency plan for infrequently calling vessels not possessing immediate spill cleanup capabilities. This plan was implemented July 1.

Under Washington State's new spill response law, the Maritime Commission furnishes an emergency response contingency plan for any vessel calling in the state's inland and coastal waters that does not possess a contingency plan approved by the state. The commission is responsible for providing a complete response for the first 24 hours after the initial report of an oil spill.

The commission levies a fee on all vessels without a state-approved spill contingency plan to pay for a cleanup contractor and other expenses. No taxpayer money is involved in providing emergency response under the commission contract.

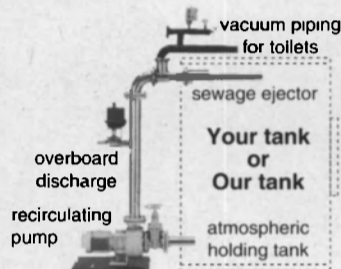
COMSAT Offers Sports News Service To Ships At Sea

COMSAT Maritime Services now offers a sports news service, called MariSports, for its customers on the high seas. The satellite-based telex service provides scores and highlights of sporting games and special sporting events for ships' crews and passengers.

COMSAT is providing the service in conjunction with Gannett News Service, the publisher of "USA Today." To receive MariSports, a ship must be equipped with an Inmarsat-A ship earth station. MariSports is available in the Atlantic Ocean Regions (East and West), and the Pacific Ocean Region.

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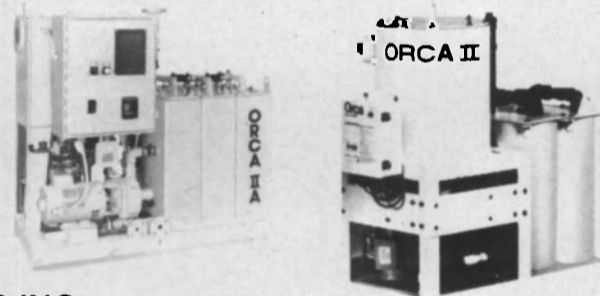
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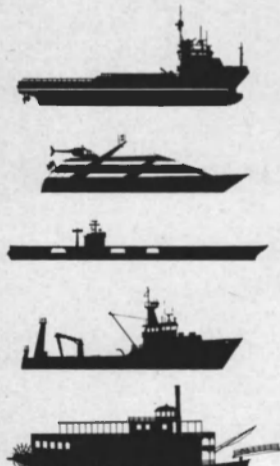
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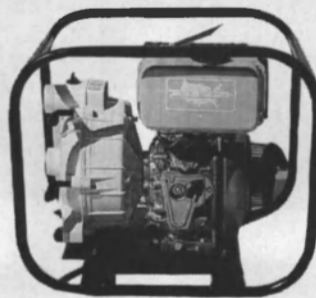
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Boats & Barges

Bender Shipbuilding Delivers 180-Foot Caterpillar-Powered Crab Catcher/Processor

Bender Shipbuilding & Repair Co., Inc., Mobile, Ala., recently delivered the Pacific Orion, a 180-foot-wide by 38-foot-beam crab catcher/processor converted for **Mark Maring** of Polmar Fisheries, Inc., a Seattle, Wash.-based fishing company. The Pacific Orion will work in waters off Alaska where it will catch, process and freeze up to 48,000 pounds of finished crab products per day.

The vessel's electronic system was supplied by Lunde Marine Electronics Inc. and includes a Furuno 25-kilowatt radar unit, a Simrad 5-

kilowatt radar, two Simrad color video depth sounders, a Raytheon color video plotter, a Navitec Master Gyrocompass and a Robertson autopilot system.

The Pacific Orion was converted from the 180-foot offshore supply vessel Gemini Tide, formerly working in oil fields in the Mediterranean Sea and registered in Italy. The vessel is now classed by the American Bureau of Shipping (ABS) +A1 and +AMS, under new ABS regulations for fishing vessels.

The main engines were replaced with two Caterpillar 3512 BHP en-



A complete hydraulic deck machinery system was installed on the Pacific Orion, including two Hartman 900 Series pressure-compensated pumps and one Hartman 700 Series pressure-compensated pump powering two Aurora cranes. The vessel will work in waters off Alaska, where it will catch, process and freeze up to 48,000 pounds of finished crab products per day.

gines with modified reduction gears for increased rpm input. Power is supplied by three Caterpillar 3406 series 290-kilowatt generator sets. The vessel's desalination plant uses the generator jacket water as a re-

coverable heat source.

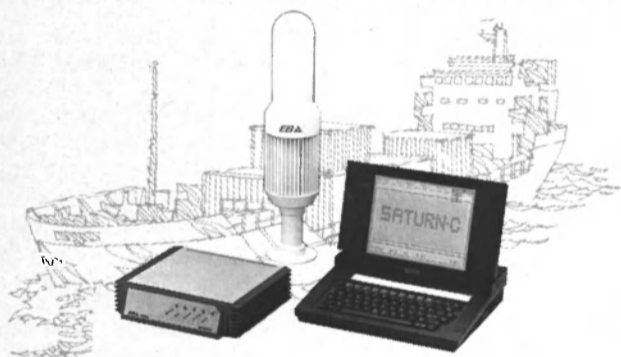
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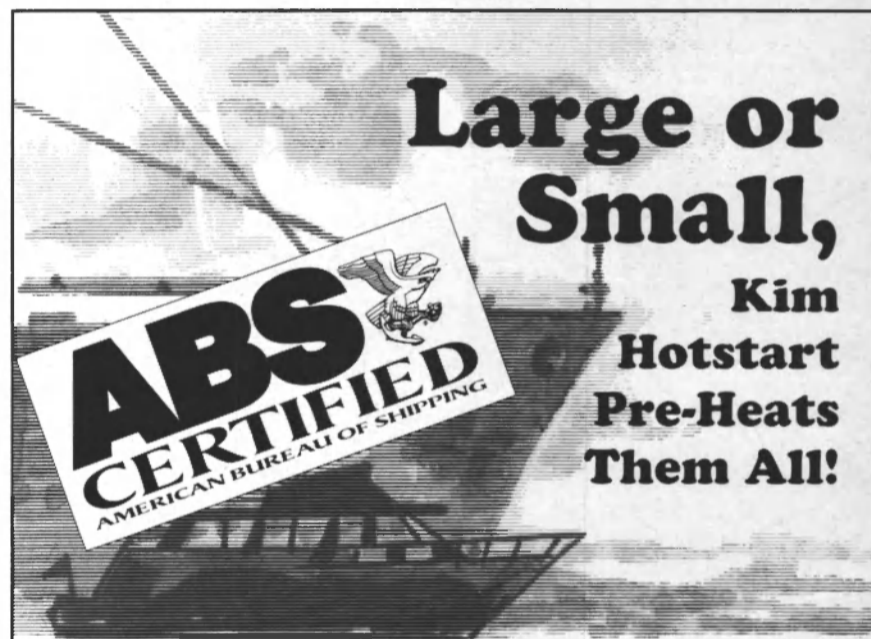
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Volvo Forms New Unit For Workboat Market—Offers Cost Control Program

Marine engine manufacturer Volvo Penta, Goteborg, Sweden, is stepping up its activities in the workboat sector and extending its Cost Control Program, a customer-support program which was introduced in conjunction with the 16-liter TAMD 162 engine.

The program, which includes individually tailored services both before and after purchase, makes it possible for fishermen and workboat owners to optimize the installation of engines and transmissions and keep operating and maintenance costs under careful control at the same time. Customer support is being further improved through the introduction of a new computerized cost calculation program and the opportunity to sign three-year warranty agreements without operat-

ing limits. The Cost Control Program is also being extended to include the full Volvo Penta range of heavy-duty engines for workboats—from 6 to 16 liters, both in propulsion and auxiliary engine versions.

The Cost Control Program is based on extensive customer support both before and after purchase: technical calculations for the engine, transmission and propeller, complete installation service, help with overall cost calculations, a selection of different service and maintenance agreements and a special duty system for parts—Non-Stop Parts Service.

As of 1991, these operations have been brought together in a new business unit within Volvo Penta called Marine Commercial.

Orvar Lundberg, head of Marine Commercial, said: "Our long-term goal has always been to make, overall solutions available for products and services which further the competitiveness and profitability of our customers. Now, however, we are also going to concentrate on our own growth."

For details on service and maintenance contracts available to workboat and fishing vessels owners, contact Orvar Lundberg, head of Marine Commercial, AB Volvo Penta, S-405 08 Goteborg, Sweden.

ress, etc. This Inmarsat-C system automatically receives maritime safety information messages which include satellite weather reports, search and rescue alerts and other commercial navigation messages.

The JUE-75A SES meets all Inmarsat and GMDSS (Global Maritime Distress and Safety System) requirements. This low-cost Satcom fulfills GMDSS requirements as an alternate for long-distance (HF) radio equipment and also qualifies as an Enhanced Group Call (EGC) receiver for safety alerts (Area 3).

For free literature detailing the new JUE-75A SES from Raytheon,

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BMTI Offers Solutions With Proven Technology In Vast Array Of Services

BMT International, Inc. (BMTI), Columbia, Md., is a full service marine company offering "complete solutions with proven technology" in a myriad of technical areas.

BMTI was formed in 1986 and is a member of the BMT Group of Companies whose heritage comes from the National Physical Laboratory (NPL) and British Shipbuilder Research Association (BSRA) formed in 1910 and 1946, respectively, and amalgamated into BMT in 1985.

As a member of the BMT group, BMT International, Inc. is able to offer to U.S. clients the vast array of services that make up the Group. Among these services are extensive model test towing tank facilities and numerous wind tunnels manned by scientists world-renown in their fields.

Computational expertise is available, both commercially through the large and diverse software suites that have been developed over the past 30 years, and through consultation and use of in-house numerical methods. BMT is also able to offer military and commercial ship design services, coastal and estuary analysis, and ports and harbors and layout construction advice.

Past and future work that BMTI has and will undertake includes lofting, nesting and creation of N.C. cutting tapes for shipyards; the analysis of vessel to maintain track lines in severe conditions; propulsion analysis and propeller design; noise and vibration surveys and advice on the reduction of them.

In the areas of structural work, BMTI has performed analysis of ships, and specific problem areas, by finite element analysis, reliability methods, and first principles.

BMT International, Inc. is a diversified company, offering the marine community expert advice and solutions to difficult and everyday problems.

For more information and free literature on BMT International, Circle 26 on Reader Service Card

Raytheon Offers Low-Cost Inmarsat-C Ship Earth Station

The JUE-75A Inmarsat-C Ship Earth Station (SES) from Raytheon Marine Company, Hudson, N.H., provides a wide range of satellite communication services at a fraction of the cost of shipboard SES previously available, according to the company.

The Inmarsat-C system offers two-way, 24-hour communication anywhere in the world via telex, electronic mail and data transfer. The SES's small, omnidirectional antenna is 17.7 inches high and 4.3 inches in diameter—about the size of an EPIRB. Its main control unit is approximately 3 by 8 by 11 inches—no larger than a VHF radiotelephone.

The JUE-75A SES or Satcom is supplied with a data terminal system which makes operation easy. With keyboard entry, communication menu and graphic window options appear on-screen to simplify selection of functions. The JUE-75A SES requires standard 12 or 24 VDC.

As part of the Inmarsat satellite network, operators of the JUE-75A SES are assured of priority access and connection to the nearest Enhanced Group Call (EGC) search and rescue center. In an emergency, the user can activate an alert by pressing a button which automatically sends distress signals to the nearest search and rescue center containing vessel's name, position data (when interfaced to a GPS receiver), nationality, nature of dis-

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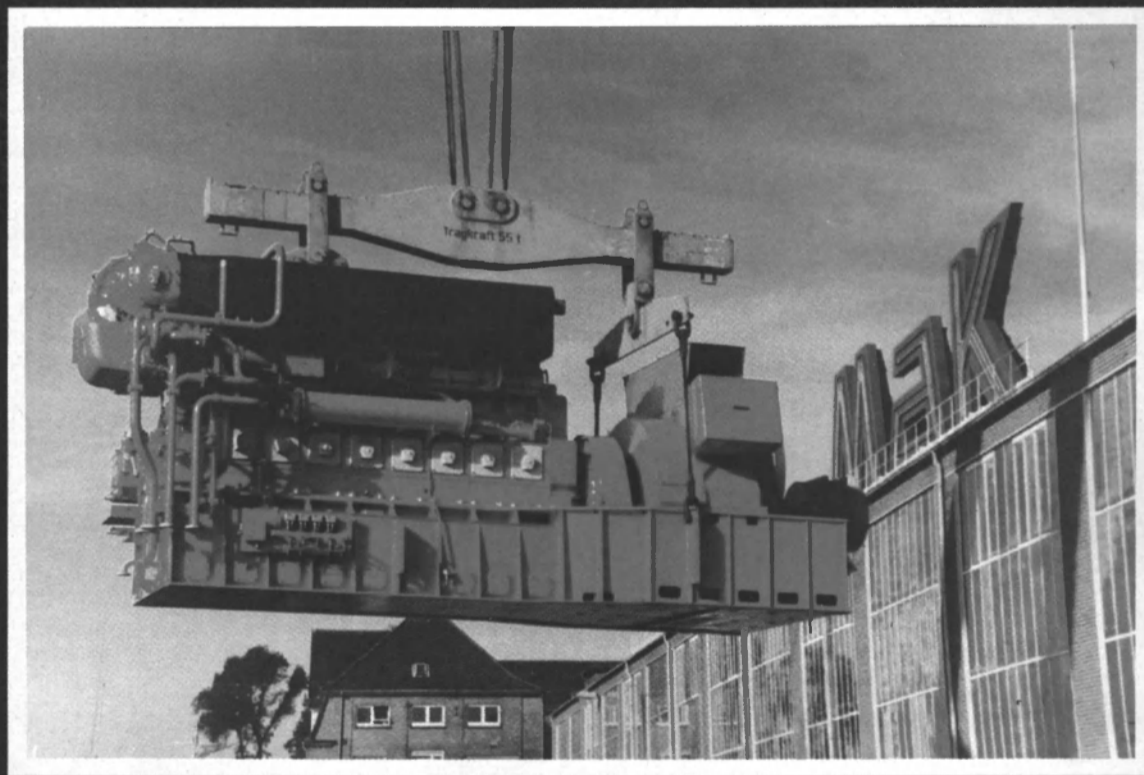
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BP Studies Possible Retrofits For U.S. Tankers

While a large amount of attention in the U.S. has focused on recent inquiries by Texaco and Mobil for series of newbuildings, BP America, Inc., Cleveland, Ohio, is quietly studying the possibility of retrofitting as many as four char-

tered U.S.-flag tankers with midbodies, according to industry sources.

BP, which charters in the neighborhood of 25 tankers which serve the Atlantic, Pacific and Gulf Coasts of the U.S., is examining retrofitting as an option to conform with the regulations associated with the Oil Pollution Act of 1990. Indications are that two tankers chartered from Interocean Management Corporation and two from Keystone Ship-

ping Co., both Philadelphia-based U.S.-flag shipowners/operators, are being considered for retrofit. The four tankers are reportedly the Brooks Range and Thompson Pass, both built in 1978 with a deadweight of 165,037 tons, and the Atigun Pass and Keystone Canyon, both built in 1977 with original deadweights of 173,380 tons. Last year, the Keystone Canyon was downsized at Northwest Marine, Inc., and her deadweight was reduced to 125,000

tons.

All of the 899-foot tankers were constructed by Avondale Industries, New Orleans, La., as part of a series of six 164,000-dwt vessels. Two other tankers of this class were built for Exxon, the Exxon North Slope and the Exxon Benicia.

Based on the regulations contained in OPA, the Atigun Pass, Keystone Canyon, Brooks Range and Thompson Pass would have to be fitted with double bottoms by the years 2000-2001.

Although several yards in the U.S. would have the capability to perform this type of work, the major players in this market would appear to be Avondale, BethShip Sparrows Point (Md.), National Steel & Shipbuilding (NASSCO), San Diego, Calif., and Newport News Shipbuilding & Drydock Co., Newport News, Va.

Avondale is the only one of the four yards constructing tankers at this time. The Louisiana yard is building T-AO Class oilers for the Navy, as well as jumboizing Cimarron Class fleet oilers.

Retrofitting might be a viable option for BP in light of present newbuilding prices. Industry sources report a series of double bottom retrofits on tankers the size of the Atigun Pass might cost in the area of \$30 million apiece, while a newbuilding with a double hull of similar size would probably run in excess of \$100 million to construct at a U.S. yard.

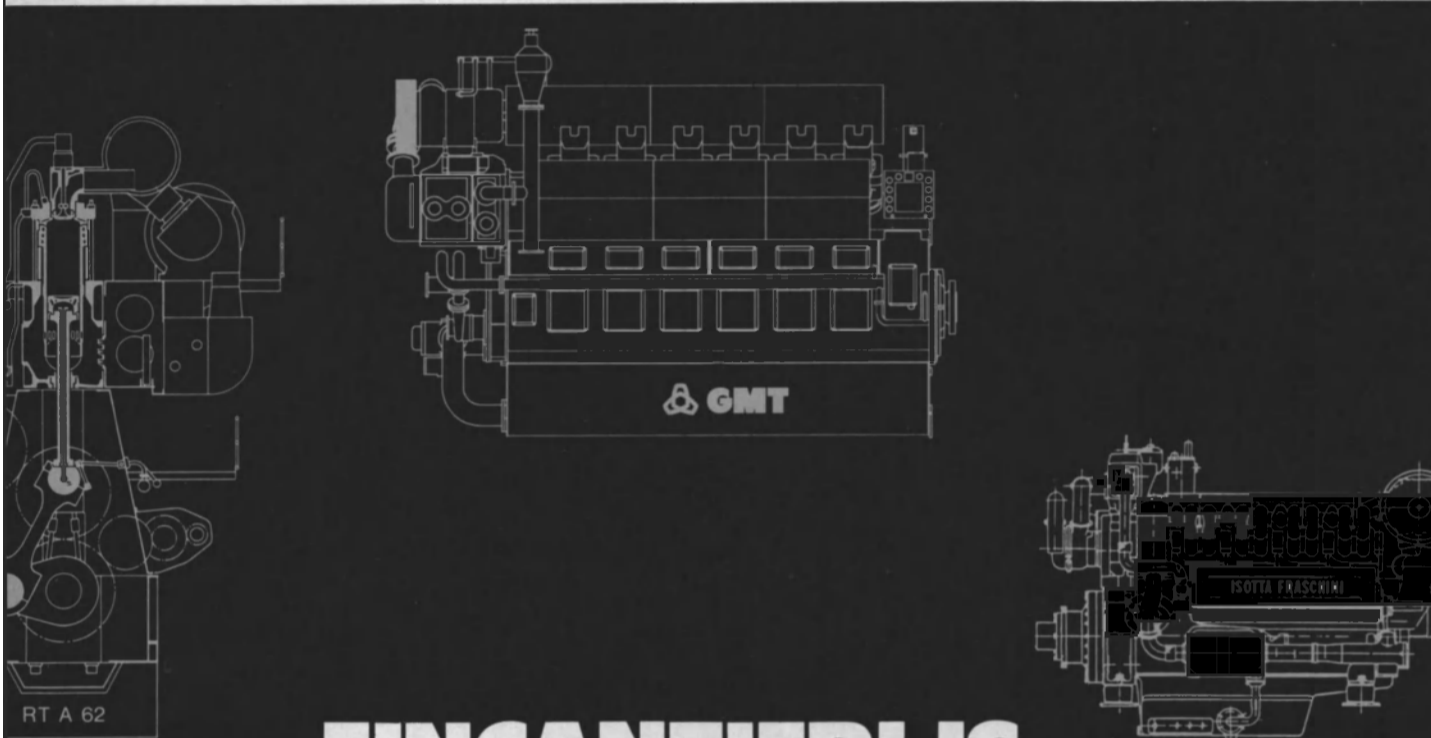
Grow Group Elects Joseph M. Quinn Chief Operating Officer

Grow Group, Inc. recently announced that **Joseph Quinn** has been promoted to the newly created position of executive vice president and chief operating officer. He will remain headquartered in Louisville, Ky., where he continues to serve as president of both Devoe & Reynolds Co. and Devoe Coatings Company.

In his new capacity, Mr. **Quinn**, who also previously served as executive vice president, Chemicals and Coatings, will report to **Russell Banks**, president and chief executive officer.

Prior to being elected executive vice president, Chemicals and Coatings at Grow Group in 1989, Mr. **Quinn** served as president of Devoe & Reynolds, a Grow division. Previously, he served as president of Devoe Marine and Group vice president for Corrosion Control divisions of the parent company, Grow Group. Prior to that, Mr. **Quinn** was vice president-Marine of Celanese Coatings & Specialty Co., which was acquired by Grow Group in 1976.

A 1958 graduate of the U.S. Merchant Marine Academy at King's Point, N.Y., Mr. **Quinn** served for four years in the merchant marine before joining Devoe & Reynolds Co. Marine Division of Celanese Corp. as a sales representative in 1962.



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DECK MACHINERY & Cargo-Handling Equipment



—A Review—

New commercial and naval boat, ship and vessel designs have spurred a great deal of development in the fields of deck machinery, deck equipment and accessories and cargo-handling systems for sea and shoreside usage.

New design Navy research vessels, for example, have led to the development and production of special research winches.

The trend of more versatile commercial fishing boat designs spawned by the industry's competitive atmosphere—shorter seasons and the need for better handling of catches—have led many owners to add more efficient, flexible cargo-handling equipment and deck machinery.

At some ports, for instance, they have commissioned new fourth generation container gantry cranes capable of handling ships with post-Panamax dimensions.

And although APL, at present, is the only container operator utilizing post-Panamax size vessels—the C-10 Class ships built in Germany for Pacific Rim use—many other operators are expected to follow suit in the near future.

The following is a brief glimpse at some of the latest cargo and deck equipment offered by some of the industry's most innovative manu-

facturers and suppliers.

Free literature describing all the equipment featured in this review is available from the manufacturers. To receive additional information, circle the appropriate Reader Service Number(s) listed following each company's review on the postpaid Reader Service Card bound into the back of this issue.

ALL SET MARINE LASHING

Since 1978, All Set Marine Lashing AB, Stockholm, Sweden, has designed and delivered cargo lashing equipment primarily for the containership market, as well as for RO/ROs.

The company recently developed semi-automatic twistlock C5AMs which were delivered to American President Lines, ANL, and Soviet owners for about 25 ships. A special feature of the C5AM is its flexible wire handle which was developed to withstand rough handling during container operation. The advantage of semiautomatic twistlock operation is increased safety and productivity. APL has increased their average productivity with two-

four moves per hour, according to All Set Marine Lashing. The higher price for the semiautomatic twistlocks is recuperated in six to eight months due to the savings in container operations manhours. The C5AM is also available in a dual function model, C5AM-DF, which provides optional operation in manual mode or semiautomatic operation.

All Set Marine Lashing has also developed a new turnbuckle called Equalash. It is used when two lashing rods are needed in parallel. It can also be used for only one rod. The advantage is half the number of turnbuckles for lashing 40-foot containers and easier lashing work. Equalash orders have already been delivered to the shipping companies ANL and K-Line.

For free literature detailing the full line of lashing products available from All Set Marine Lashing,

Circle 65 on Reader Service Card

DEL GAVIO MARINE HYDRAULICS

Del Gavio Marine Hydraulics, Carlstadt, N.J., maintains a full-service hydraulic repair facility

noted for the overhaul and repair of all types of electrohydraulic deck winches and windlasses.

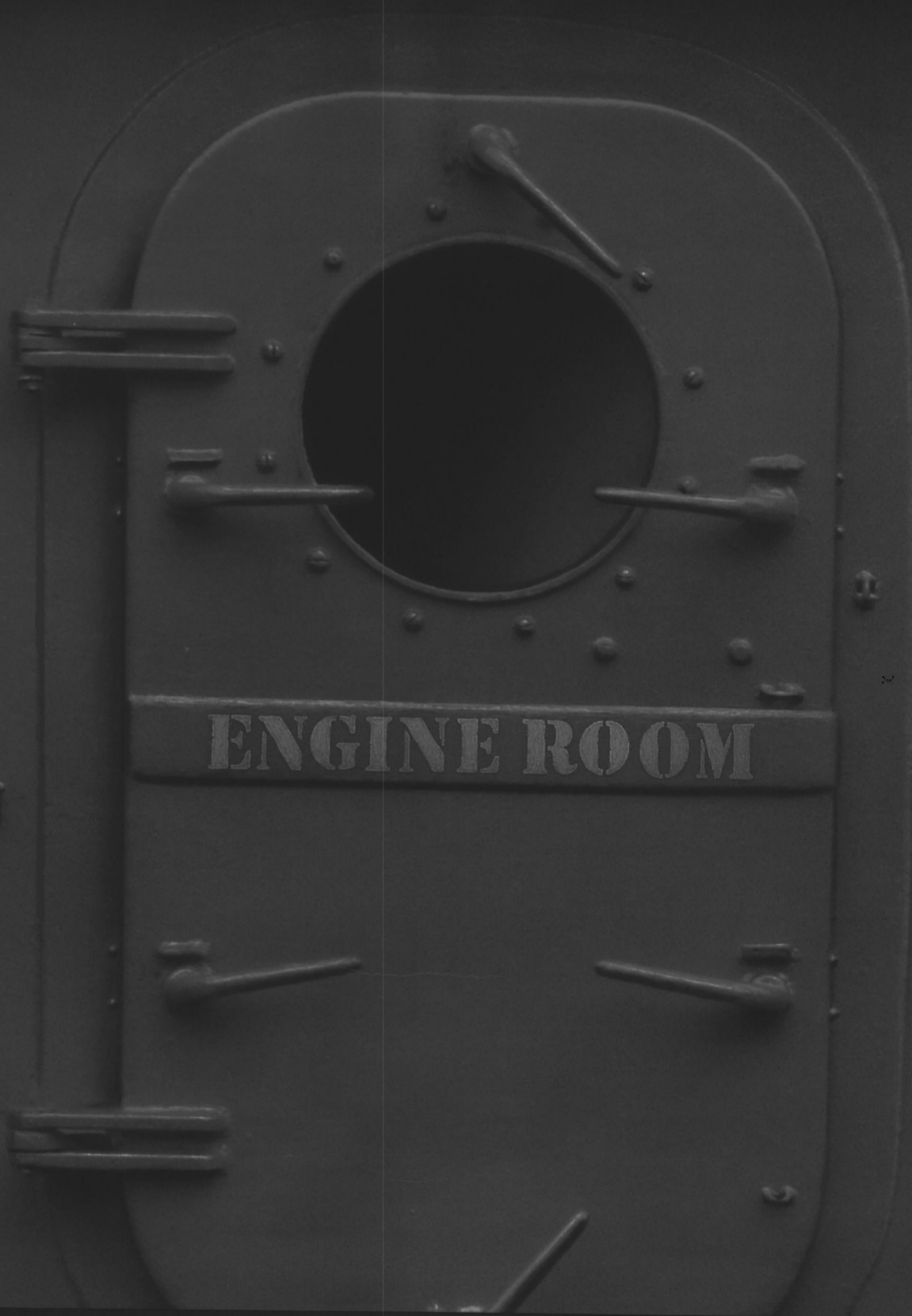
Recently, an emergency repair was undertaken at Port Elizabeth, N.J., of a double-drum mooring winch aboard the SS Mormacsun. Without any advance arrangements, the complete rotating assembly was removed from the vessels and stripped down. A badly corroded shaft was repaired and machined. All new bushings, bearings and retainers were fabricated and fitted and the unit was reassembled, reinstalled and tested within 72 hours.

The firm prides itself on professional, timely repairs and is especially experienced with older Western Gear and Hyde systems, as well as more modern systems such as Brattvaag, Fukushima, Skagit and Haggblunds. Other company services include assistance in the design of new systems or modification of existing systems.

Del Gavio Marine Hydraulics offers service on a worldwide, around-the-clock basis and responds to emergency or routine repair calls from its facilities at Carlstadt, N.J., and Oakland, Calif.

For free literature detailing Del Gavio Marine Hydraulic services,

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(continued, page 44)



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Deck Machinery

(continued from page 41)

HAGGLUNDS MARINE

Hagglunds, Inc., of Montvale, N.J., is a subsidiary of the Sweden-based company Hagglunds Marine & Offshore AB, who has been a major supplier of electrohydraulic cranes to the marine and offshore

market for the past 30 years. Their product range spans from 2-ton service and hosehandling cranes up to 120-ton twin cargo cranes.

Company research and development efforts during the past decade have resulted in the development of electronic crane control systems, as well as microprocessor-controlled cargohandling systems, named Steadyliner and Swing Defeater.

For Arctic use, or where temperatures may be as low as -50 de-

grees C, Hagglunds has developed a special type of electrohydraulic crane. This type of crane was delivered to the icebreakers Polar Star and Polar Sea, which the U.S. Coast Guard built for use in the Alaskan area.

Hagglunds cranes were also selected for and installed on 21 of the Military Sealift Command's ships, all together 79 cranes ranging from 36 to 100 tons lifting capacity. All these ships were successfully de-

ployed in support of coalition forces during the recent Persian Gulf crisis. A further eight tactical Auxiliary Crane ships were also used in this effort, all of which are equipped with Hagglunds large twin cranes of a special design fabricated in the U.S.

For the T-ACS project, Hagglunds has been entrusted with the delivery of 32 cranes, T-ACS-4 to -10.

For a company such as Hagglunds, cooperation with all the leading shipowners is essential in order to fulfill the requirements raised in various new projects. Such an example is the newly developed Pallet Swinger, a specialized crane suitable for pallet or multi-pallet sizes for the Crystal Class reefer ships, currently under construction at Boelwerf, Belgium.

Hagglunds has also been awarded the contract for the delivery of a new type of four-rope crane, specially designed for a coal transporting vessel to be used on the Swedish coast. The vessel will transship coal to smaller vessels.

In addition, Hagglunds' worldwide service organization offers after-sales support. Spare parts and service are available 24 hours a day, 365 days a year.

For free literature detailing the full line of deck cranes and cargo equipment from Hagglunds,

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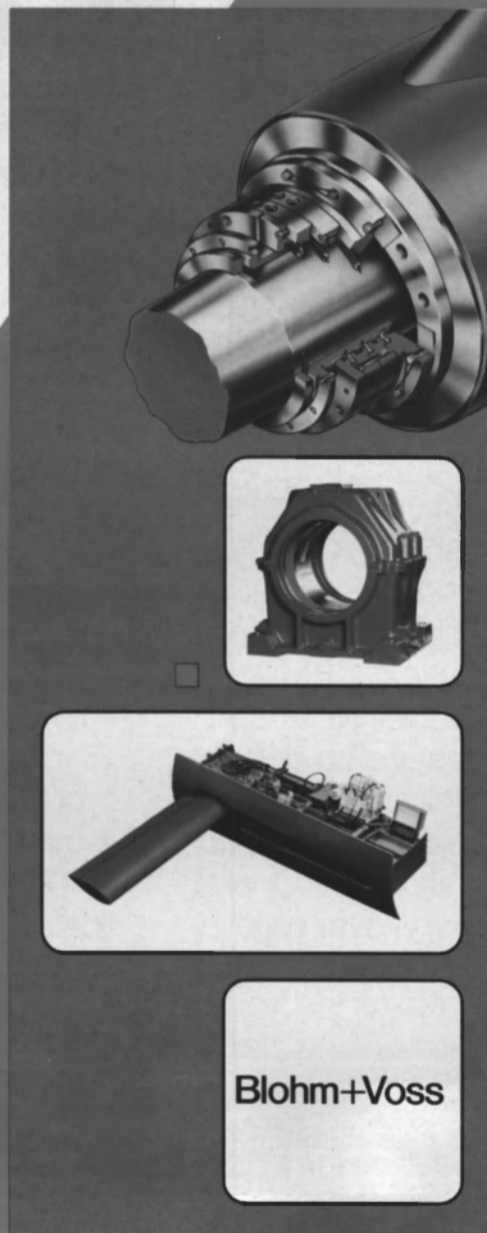
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INTERCON

Intercontinental Engineering Manufacturing Corporation (INTERCON) of Kansas City, Mo., has been serving the marine, defense, and construction industries since 1958. In marine markets, proprietary products include heavy deck machinery and custom material handling equipment for commercial and military applications.

Intercon's line of deck machinery includes towing and anchor handling winches, barge and drill rig mooring systems, traction winches, windlasses, capstans and heavy duty hose reel assemblies for pipelay and underwater construction applications. Intercon's tug/barge Coupler Systems offers advanced connection technology to the tug/barge industry and a full line of cranes, including gantry, portal and stiffleg configurations up to 200 tons in capacity.

Intercon's engineering capability provides total support for all proprietary marine equipment and contract manufacturing programs. CAD/CAM systems, including finite element analysis, are fully incorporated in the engineering organization for integrated control of design and manufacturing processes. Manufacturing and quality control activities conform to MIL-I-45208A and related military standards.

Intercon's 117-acre manufacturing site in Kansas City offers 600 foot high-bay buildings equipped for

heavy fabrication, machining, assembly and testing. This integrated manufacturing capability includes some of the largest CNC machine tools in private industry.

Noteworthy current contracts include two weapons handling portal cranes for Northern Division, Naval Facilities Engineering Command. Deliveries to Yorktown, Va., and Charleston, S.C., are scheduled for late 1991. In addition to design/build contracts for military material handling equipment, Intercon continues with its subcontract fabrication and machining services for the Arleigh Burke Class destroyer (DDG-51). Recent commercial deck machinery deliveries include winches for Bisso Marine, Brix Maritime, and Santa Fe International. The company's other equipment includes double drum towing winches, special shiphandling winches, and four-point mooring systems for jack-up drill rigs.

For free literature detailing the full line of cranes and deck equipment from Intercon,

Circle 68 on Reader Service Card

LIEBHERR-WERK NENZING

Liebherr-Werk Nenzing GmbH of Nenzing, Austria, continues to capture a large number of deck crane orders for the reefer vessel sector. Production facilities in Nenzing, Sunderland, U.K., and Guaratingueta, Brazil are fully booked for the remainder of this year and most of next year and 1993.

The present backlog includes nearly 200 ship, offshore and mobile harbor cranes and hydraulic cable excavators. The company expects further orders in the near future.

Among the present orders at Liebherr-Werk are a total of 18 deck cranes to be delivered to Danyard A/S in Frederikshavn, Denmark, and installed on six reefer vessels for Chiquita United Brands of Cincinnati.

Each ship will be equipped with Liebherr's new low height, slim line CBW Litronic container-handling cranes. The two single cranes on each vessel have capacity of 36 tons at 20 meters radius, the twin crane comes with 2 x 20 tons, also at 20 meters outreach.

This order follows another for 32 reefer cargo-handling cranes for eight newbuildings under construction at four Norwegian shipyards (Kleven, Aukra, Langsten) for a Danish/Finnish group of owners (Lauritzen, Erikson, Holming). In this instance, each vessel will be equipped with two CBW 8/20 Litronic and two CBW Litronic with capacities of 36 tons at 21 meters radius and 20 tons at 22.5 meters.

Still on delivery is a contract for 48 high-speed cranes for 12 vessels of type CBW 5/19 Litronic, capable of working under offshore conditions.

In the field of ship gantry cranes

for container feeder and reefer vessels, Liebherr has been a market leader for about 20 years. Recent installations and deliveries include six multipurpose gantry cranes for reefers under construction at the Danish yard Odense Lindoe, as well as delivery and commissioning of four additional ones for Maersk Line ships built at Tsuneishi, Japan.

Also just delivered are six C-type container-handling gantry cranes for three vessels built at Tsuneishi for Chiquita and an additional four

cranes on two ships for Dole Freshfruit Co. built at Fincanteri in Trieste, Italy.

For free literature detailing Liebherr-Werk Nenzing cranes,

Circle 69 on Reader Service Card

MARKEY MACHINERY

In 1907, the Markey Machinery Company began providing Puget

Sound vessel operators with high quality machinery. The company still offers dependable and rugged deck equipment, including research and towing winches, capstans, windlasses, and various line handling machines.

During 1991, scientific research winch systems were installed on the R/V Nathaniel B. Palmer and NOAA ship Discoverer. Each system included custom winches, power units,

(continued)

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GE Steam Team

Circle 22 on Reader Service Card

Deck Machinery

(continued from page 45)

instrumentation, and winch controls.

Two towing winches which utilize a new lighter weight design were delivered at the start of the year to Bollinger Shipyards for installation on the new Hawaiian Tug & Barge vessels Hoku-Loa and Hoku-K'ea. Additional orders have also included a capstan-windlass to Gretna Machine & Iron Works for a new Matson barge, two gypsy winches for service aboard Crowley Maritime's M/V Milne and M/V Thompson, and an air-operated capstan for Saudi ARAMCO.

Backed by 84 years' experience, Markey Machinery is able to provide new machinery or enhance existing equipment or extend the service life of a customer's current equipment.

For free literature detailing the deck machinery available from Markey Machinery,

Circle 70 on Reader Service Card

MCELROY MACHINE

McElroy Machine & Manufacturing Co., Inc., Gulfport, Miss., specializes in the manufacture of custom winches and other types of marine deck machinery. Established in 1915, the company's engineering and design capabilities have grown along with the marine industry's demand for more complex machinery. McElroy's diverse product range covers small single drum mechanical winches weighing only 25 pounds up to double drum diesel-driven winches weighing in excess of 50,000 pounds. Hydraulic, diesel and electric drive packages are also available on winches and other deck machinery.

Current and recently completed contracts include 14 double drum self-contained diesel-driven winches built for the U.S. Navy to be installed on their side-loadable warping tugs. Also currently under construction are four mooring capstans for installation aboard the Army Corp of Engineers dustpan dredge Hurley being built by Trinity Marine Group.

The T-AGS-51 and -52 oceanographic research vessels also built by Trinity are equipped with several McElroy designs including: the MDW 137-LBH Bow Anchor Windlass, Series 26 Side Scan Sonar Winch, Series 10 Variable Speed Velocimeter Winch and the Hydraulic C Frame and Overboarding Sheave. The fiberglass launches for the T-AGS project, subcontracted to U.S. Marine, New Orleans, La., are equipped with the Series 8.5 Manual Velocimeter winch and the Series 20 D.C. Electric Side Scan Sonar Winch.

Twelve bow ramp winches are being installed aboard the U.S. Army 174-foot LCUs. Four mooring winches and their hydraulic power

pack will be installed on a 100-ton crane barge being built for the Panama Canal Commission and a model MDW 137-LBE double anchor windlass for the Kilgore supply boat was also recently delivered. Five of 23 shipsets of McElroy equipment including capstans and davit winches are ready for shipment for installation aboard 77-foot patrol boats for the Philippine Navy.

Steiner Shipyard of Bayou La Batre, Ala., recently delivered two

220-foot offshore supply vessels to Seacor Marine, Inc., with McElroy MDW 125-LBE double anchor windlasses aboard. Ocean Marine, also from Bayou La Batre, are busy building several fishing boats for delivery to an African customer which will be outfitted with McElroy gear.

For free literature detailing the full line of deck machinery offered by McElroy,

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NEW ENGLAND TRAWLER EQUIPMENT

Sixty-five years ago, **Ralph F. Symonds** started building deck machinery for the fishing fleet around Boston and called his Chelsea, Mass., firm, New England Trawler Equipment Company. The quality and innovative design of his deck machinery soon expanded his product line and customer pool to (continued)

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Deck Machinery

(continued from page 47)

include diverse commercial ship operators, all maritime related government agencies in the U.S. and Canada, and all major shipbuilders. His son **William W. Symonds** assumed the leadership of the company in 1964.

This year the company was acquired by **William C. Hoyt**, who brings 14 years' experience in inter-

national financial and manufacturing management to NETEC. As president, **Mr. Hoyt** has taken on managing the company's daily operations, while **Mr. Symonds** continues as chief operating officer and concentrates on design and product development.

While more than 90 percent of New England Trawler's business is from repeat customers, the company prides itself on finding a better way to meet every customer's needs with innovative design.

One example of this is the successful design package for both deck machinery and the vessel's central hydraulic power system. This design integrates the ship's hydraulic power unit, mooring winches, anchor windlasses, capstans, ladder winches, fender hoists, cranes, reels, and assorted auxiliary pumps—all into one system—with local or remote controls. In addition to hydraulically powered packages, complete shipsets and individual pieces of deck machinery can be supplied

with diesel, electric, pneumatic, or manual power, or in combination.

New England Trawler Equipment Company's market has moved away from the fishing industry almost completely. Current contracts include building complete mooring and anchoring systems for bulk coal and fuel transport companies, the special nonmagnetic anchor windlasses for the U.S. Navy's Mine Countermeasure (MCM) and Minehunter (MHC) Class vessels, the anchor windlasses and capstans for the Navy's Fast Coastal Patrol Boats (PBCs), the electromechanical rescue boat crane and anchor capstan for the prototype USCG Heritage Class patrol boat, and the berthing capstans for both the Magnetic Silencing Facility, and the Explosive Handling Wharf #2 at the Navy's Kings Bay, Ga., submarine base. Another project for a major chemical company, calls for the construction of a complete shipset of hydraulic winching equipment to control the movement and positioning of a floating mineral processing mill, as well as the slewing and luffing winches for the booms located at the stern of the platform for disposal of the mining tailings.

Some of the more innovative designs built by NETEC provide a towing winch for an oil company vessel with a skimming system specifically for the clean-up of oil spills, and an Army Corps of Engineers barge with three large "intelligent" electrohydraulic spud winches that self-adjust for changing river water levels when left unattended at night.

Most recently, NETEC added CAD to its growing capabilities in order to better meet customer needs.

For free literature detailing New England Trawler Equipment,

Circle 72 on Reader Service Card

NORDIC


Nordic Machine & Manufacturing, Seattle, Wash., recently sold a tow winch to Western Towboat of Seattle for installation on its new line haul tug. The winch was built to Western Towboat's specifications for the 94-foot Western Navigator currently in container barge service. Hydraulically driven and capable of handling 3,000 feet of two-inch cable, the Nordic winch features up to 40,000 pounds of full drum line pull. Other features include an air-actuated drum clutch, a diamond thread level wind, an air/hand operated band brake, as well as a separately driven capstan. Nordic completed the package with a unique headline/anchor winch that features a below-the-deck drive and brake system.

Nordic Machine & Manufacturing has specialized in hydraulic machinery since 1946, and continues to provide quality anchor winches and deck machinery equipment to the fishing and marine industries.

For free literature detailing Nordic's line of deck machinery,

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RAMEY

Ramey, Inc., Roseburg, Ore., is a leader in the manufacture of hydraulically operated material handling cranes for the marine, timber, mining, quarry, heavy machinery and solid waste industries.

The Oregon company manufactures cranes for the marine industry based on customer specifications and needs. Models range from fixed, straight booms and optional telescopic extensions to models featuring two-section or three-section knucklebooms for maximum lift and versatility. Lift capacities are offered from 2-1/2 ton to 37-1/2 ton.

Pedestal mounted for dock and deck installations, Ramey cranes can also be track-, carrier-, truck-, or tractor-mounted and can even be rail- or gantry-mounted.

Standard features include hydraulic safety lock-out valves, fail-safe swing brakes, proportional hydraulic controls, hydraulic planetary drive winch and a three-part marine finish. Many optional features are available including custom-built grapples and attachments which offer greater working speed, positive load control and a wider margin of safety.

For free literature detailing the marine cranes offered by Ramey,

Circle 74 on Reader Service Card

SEA-MAC

SEA-MAC Marine Products, Inc., Houston, Texas, is a manufacturer of sophisticated, state-of-the-art winches and tow reels used primarily in marine applications. In addition to offering a standard product line, SEA-MAC also custom engineers and builds equipment to meet customer's needs.

The company's products range from one to 100 horsepower high-speed/medium line-pull handling systems tailored to meet customers needs. Typical applications include deep-tow side scan sonar, large V-fin systems, deepwater subsea TV, downhole operations, medium coring operations, and general oceanography.

For general purpose oceanographic instrumentation applications, SEA-MAC offers the SM85, a very lightweight portable oceanographic winch, which offers a 400-pound line pull at 150 feet per minute with a bare drum.

Also offered by SEA-MAC are 88H Series winch, with a 2,000-pound line pull at about 88 feet per minute with a bare drum, and 100 Series winch with a 1,000-pound line pull at about 100 feet per minute with a bare drum.

SEA-MAC's 200 Series marine tow winch is specifically designed for short tow side scan systems, well logging services, towed arrays or instrumentation and for oceanographic service. The Houston-based company also offers the aluminum 300 Series for similar applications.

Other SEA-MAC models include the 500 Series (5 and 7 hp), 1000 Series (10, 15 or 20 hp), 2500 Series

(15 to 50 hp), 3000 Series (20 to 40 hp) and 4000 Series (25 to 60 hp).

For free literature detailing the full line of SEA-MAC marine tow winches,

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SKOOKUM

Blocks and fairleads built by Skookum/Ropemaster, Hubbard, Ore., fill the diverse demands of Gulf Coast marine customers.

Skookum Trawl blocks originally designed to handle the extreme conditions of the commercial fishing fleet are currently in service on many oceanographic and seismic survey vessels.

Recent orders have been for Skookum's model TB-16W with a designed working load rating of 20 tons. This trawl block features 16-inch diameter extra wide manganese steel sheave with a Timken tapered roller bearing and is also equipped with a Timken thrust bear-

ing swivel attachment. The 7-3/8-inch by 9-inch throat opening allows easy passing of various size connecting attachments.

A special block requirement was recently taken care of for McDermott, Inc., in Amelia, La. Skookum/Ropemaster designed and built a pair of special 90-ton-capacity pipe line puller blocks to be used with 2-3/4-inch diameter wire rope. These blocks were equipped with 30-inch diameter heavy duty man-

(continued on page 51)

How To Prevent A Part Attack.

When it comes to finding or selling marine parts and equipment, Inventory Locator Service, Inc. (ILS) can put you in touch with the world. We list the inventories of suppliers industry-wide on our data base for easy access by buyers in need of marine equipment.

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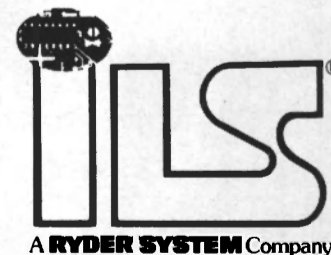
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at competitive prices.**



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OR HERE

Deck Machinery

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ganese steel sheaves using Timken tapered roller bearings. One special design requirement was an oversize throat clearance of 10 inches by 16 inches to allow passing large connecting attachments.

Skookum/Ropemaster regularly designs and builds custom engineered blocks, fairleads and sheaves for the diversified and difficult job requirements of marine applications.

Skookum/Ropemaster has manufactured quality rigging products for over 100 years.

For free literature detailing the blocks and fairleads manufactured by Skookum/Ropemaster,

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SMITH BERGER MARINE

Smith Berger Marine, a leader in deck-mounted and underwater fairleads continues to expand its product line with new and innovative products designed to meet the needs of the marine industry.

For Ocean Production Systems, Smith Berger has designed and built chain stoppers for 3-inch mooring chain which are releasable by remote control under storm condition loads and which also feature the ability to ratchet as the chain is tensioned.

For Shell Offshore TLP Auger, Smith Berger is providing its patented Bending Shoe Fairleads for 5-inch diameter wire rope. The eight point mooring will provide the ability to reposition the TLP.

Currently in production are 10 fairleads for Smedvig Production Contracting of Norway for use on their new TUMOPS vessel being built in Spain. These fairleads for 84-mm chain mount into the bottom of the turret and can be lifted into position without guidance by divers.

Also in production are 12 column-mounted fairleads for 90-mm chain which will be installed on the SANA FPF semi-submersible currently under construction in Italy.

Crowley Maritime has ordered three new Stern Roller/Tow Pin sets for retrofit of their towboats.

Smith Berger has also provided many innovative fairleads and guide sheaves for a variety of projects including the U.S. Navy AOE fast combat support ships and the Corps of Engineers dustpan dredge Hurley.

For free literature detailing the full line of deck equipment offered by Smith Berger,

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ULVEN FORGING

Manufactured in the U.S., Ulven "Super Alloy Forgings" are known

not only for shackles, hooks, bolts, rings and links, and tongs, but also for the ingenuity of custom steel forgings tailor-made to customer specifications for machinery and cargo handling.

Stainless steel forgings, ideal for maritime applications, made in a closed die with tight tolerances are a specialty of Ulven. The Hubbard, Oregon-based company's bridge rods have been sold across the U.S.

Ulven supplies forgings in non-ferrous materials (Titanium and

exotics), heat treated, painted and galvanized. Ulven is able to produce its Super Alloy Forgings in small and large production runs with reasonable lead times to suit customer needs.

First established to serve the timber and logging industry, Ulven Forgings has been supplying equipment for over 20 years.

For free literature detailing the Ulven Forging products,

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WESTMONT INDUSTRIES

Westmont Industries, a Los Angeles, California-based manufacturer of floating cranes and equipment, was recently awarded a U.S. Navy contract to engineer, fabricate, assemble, test and deliver six 100-long-ton floating cranes. The floating cranes are to be used at various naval activities worldwide.

(continued on page 52)

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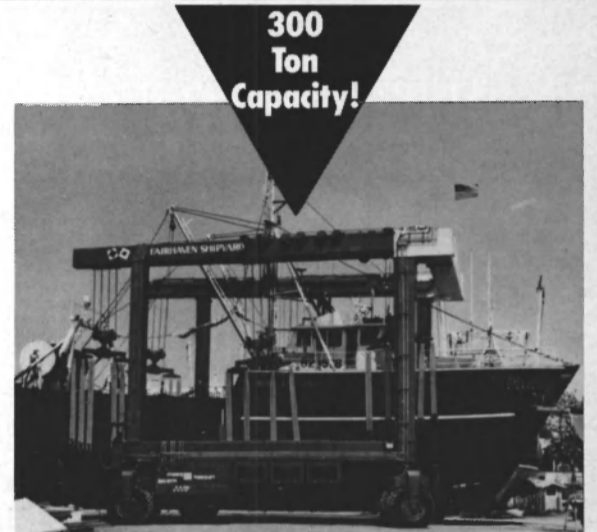
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Deck Machinery

(continued from page 51)

The barge will be a single-deck design, including a reinforced cargo deck area, boom rest, crew spaces, auxiliary diesel engine-generator installation, shoe power back-up, capstans and other accessories. The barge will also be designed for unmanned, open-sea towing.

The crane will be diesel-powered, fully revolving, with a luffing boom

and three independent hook hoists. The main hoist will be rated 100 long tons at 80-foot radius.

Westmont is also in the final phase of another contract with the Navy to provide five 100-long-ton floating cranes almost identical to those newly contracted for. Four floating cranes have already been delivered.

For further information on Westmont Industries,

Circle 79 on Reader Service Card

Huge Drydock Now Operating At Atlantic Marine

The drydock Alabama is now in operation and drydocking vessels at Atlantic Marine, Inc. in Mobile, Ala. The drydock is the former Big T from the Todd-Galveston yard.

The drydock arrived at Mobile in January 1991 and drydocked its first vessel under its new name in May.

Since then, the 853-foot-long drydock has been in continuous operation, helping provide a stable work force for the shipyard. The Alabama has a lifting capacity displacement of 40,000 tons and dead-weight capacity of 225,000 tons, with a breadth outside of wingwalls of 213 feet and clear width between wingwalls of 164 feet. Yard officials are confident that the addition of the Alabama will complement Atlantic Marine's existing dock and increase the yard's ability to provide quality service.

For free literature detailing the ship construction and repair services of Atlantic Marine,

Circle 83 on Reader Service Card

U.S. Underwriter Ends International Operations

Marine Office of America Corporation, a unit of Continental Corporation and a leading U.S.-based shipping underwriter, recently announced it would terminate all its international operations.

As part of a restructuring plan, MOAC has ended its membership in the Institute of London Underwriters and terminated all its general agency agreements in Belgium, Denmark, France, Italy and the Netherlands.

The pull-out of international marine underwriting follows the decision by Continental Corporation to concentrate on providing insurance to multinational companies rather than pursue specialist areas.

MOAC has said it will continue to write specialist shipping business in North America, where its share of the market is largest, with a significant percentage of its business in inland accounts.

The company's withdrawal from international business follows its decision to drop out of the marine insurance pool of the American Hull Syndicate.

CCL Orders Fourth Superliner From Kvaerner

Miami-based Carnival Cruise Lines (CCL) recently signed a contract with Kvaerner Masa-Yards of Finland to build a 70,000-grt cruise ship, the firm's fourth 2,600-passenger megaliner. The contract was valued at \$315 million.

To be called the Fascination, the latest vessel in the megaliner series is expected to be delivered in the fall of 1994. CCL already has one megaliner, the Sensation, under construction at the yard, which is expected to be delivered in the fall of 1993.

According to CCL chairman and chief executive officer Micky Arison, the itinerary for the Fascination has not yet been decided, but, he said, the company is exploring the possibility of using her outside the North American market.

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Alden's EPIRB has a five year battery to give you an extra margin of safety, with the power to transmit for 48 hours in -4°F (-20°C) conditions. The SATFIND-406 EPIRB meets Canadian, U.S. Coast Guard and COSPAS-SARSAT

specifications and is approved for use on commercial and recreational vessels. The Category 1 EPIRB is designed for both automatic and manual release; the Category 2 EPIRB for manual release.

Free Brochure Has All The Facts

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The SATFIND-406 EPIRB allows horizontal, vertical or slanted mounting.

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Boat type _____

Circle 296 on Reader Service Card

Deere Power Systems Offers Computerized Selection Guide/Catalog

A computerized component selection guide and catalog is now available from Deere Power Systems, Moline, Ill.

Powerpac, an interactive disk intended to simplify the selection process, helps design engineers specify the right John Deere engine for their needs. The selection guide feature of the program leads engineers through a series of questions and, ultimately, suggests one or more John Deere engines for the user's application.

Engineers already familiar with John Deere components can bypass the selection guide and directly access the electronic catalog section which contains performance curves, comparisons with competitive products, dimensional data and option information for each engine.

Powerpac is in MS-DOS format and will run on any fully compatible IBM personal computer.

In addition to offering component data and illustrations, Powerpac includes warranty information. The disk also contains design tips including formulas, rules of thumb, conversion ratios and other information to help design engineers make better selections.

This computerized catalog and selection guide is the first of its kind offered by an off-highway components manufacturer. The catalog is available to anyone who specifies John Deere equipment. Powerpac subscribers automatically receive new and updated releases on a regular basis.

The first release includes all John Deere engines while future issues will feature other John Deere and Funk transmission components.

For more information,
Circle 45 on Reader Service Card

Ventomatic Incinerators Meet MARPOL 73/78 Annex V Specifications

U.S. manufactured marine multi-waste reduction systems that meet MARPOL Annex V proposed specifications are being introduced by Ventomatic Incinerator Corporation of Avon, Mass.

Ventomatic marine incinerators are multi-waste reduction systems that meet the MARPOL Annex V proposed specifications. Featuring a secondary mixing/afterburner section which achieves combustion temperatures up to 2300 degrees F for the clean, safe destruction of plastics with no visible emissions, these fully automatic systems are designed with a large 44-inch diameter feed door for easy loading.

Eliminating reliance upon shore-side waste disposal facilities, Ventomatic marine incinerators can destroy crew-generated trash, galley-generated waste, waste oil, and all plastics with no visible emissions. Designed for crews of 25 or more

people, these modular systems are offered with batch or continuous feed operation and can be easily retrofit to existing vessels.

According to the manufacturer, Ventomatic marine incinerators are the only U.S.-manufactured systems that are specifically designed for marine applications.

For free literature from Ventomatic Incinerator Corporation,

Circle 17 on Reader Service Card

E-A-R Offers New Isolation Mounts Against Shock And Vibration

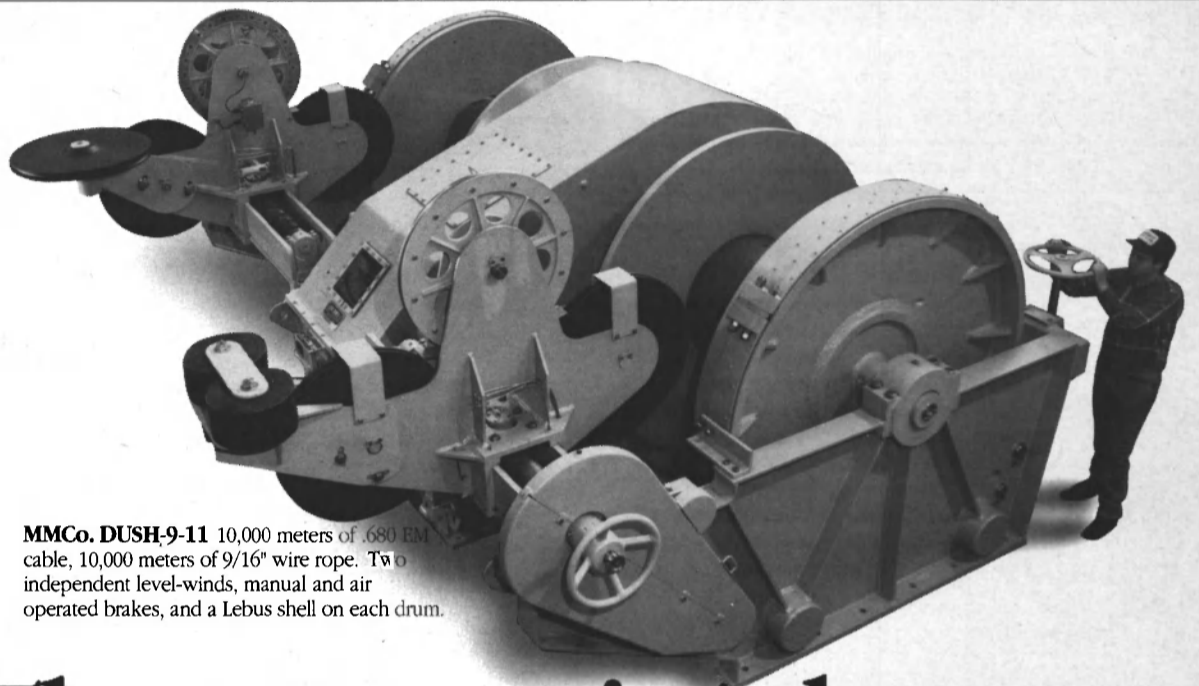
E-A-R Specialty Composites, Indianapolis, Ind., has introduced a new line of ISOLOSS polyurethane stud mounts that provide high performance shock protection, vibration isolation and noise control in a wide range of OEM equipment ap-

plications.

Featuring cure-bonded metal inserts that eliminate the need for assembly hardware, the ISOLOSS mounts are available in 15 standard sizes, in diameters from 3/8-inch to 1-1/2-inches, for loads from one-half pound to 250 pounds per isolator.

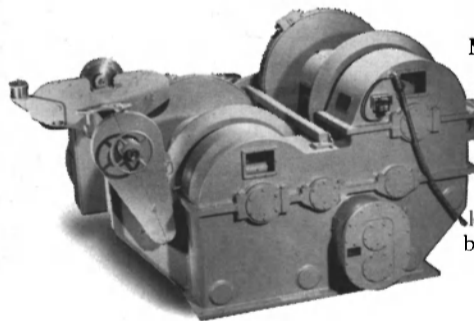
For more information on E-A-R's ISOLOSS HD and ISOLOSS VL mounts,

Circle 27 on Reader Service Card

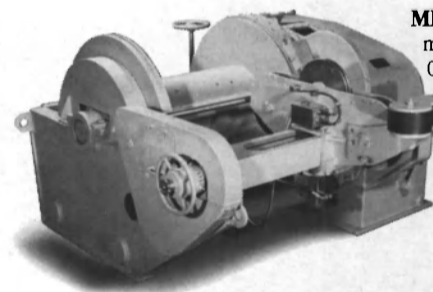


MMCo. DUSH-9-11 10,000 meters of .680 EM cable, 10,000 meters of 9/16" wire rope. Two independent level-winds, manual and air operated brakes, and a Lebus shell on each drum.

The community's latest research winch system.



MMCo. DUSH-5-5WF 10,000 meters of 0.322 EM cable, 10,000 meters of 5/16" wire rope. Two speed geartrain, enclosed clutches with plexiglass viewports, and a single level-wind serving both wire drums.



MMCo. DUSH-5 10,000 meters of 0.322 EM cable, 0-11,000 lb. line pull at speeds from 0-600 ft/min. Utilizes tubular base for reduced weight and wear-resistant materials for increased service life.

To operate in the harsh environment of the Antarctic Region you must rely on the dependability of your equipment. This is one reason why the Antarctic Support Associates chose Markey research winches for their new R/V "Nathaniel B. Palmer" under construction at North American Shipbuilding and to be operated by Edison Chouest Offshore, Inc.

Comprised of three winches, winch controls, instrumentation, and hydraulic power units, this

complete system can be operated from either local or remote control consoles with winch mounted sensors sending wire information to console mounted display units.

For reduced space requirements, the three hydraulic power units are integrated into a common base to form the 450 H.P. heart of this system. A unique feature of these power units is a continual flow hydraulic heating circuit using synthetic oil to keep exposed hydraulic components operating in the Antarctic climate.

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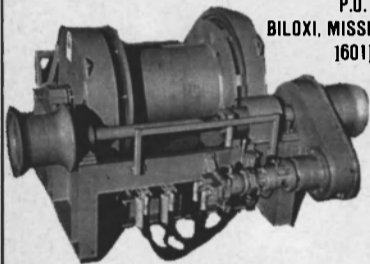
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Circle 225 on Reader Service Card

New Soles Affiliation For New England Trawler

New England Trawler Equipment Company, Chelsea, Mass., recently announced the formation of a new sales affiliation with **John F. McDonald**, which began September 1, 1991. Mr. McDonald, who was the former vice president of S.C. Loveland Company, Inc., brings 26 years of experience in the barge and towing industry to his new role.

As an independent sales consultant, Mr. McDonald will concentrate on developing sales in the towboat and barge industry. He will work along with technical representative **Vernon A. Olson**, who has represented New England Trawler Equipment Company for many years throughout the Eastern U.S., the Great Lakes and the central river system.

Alexander Industries, New Orleans, La., is the company's exclusive representative in the Gulf Coast region, including the states of Louisiana, Alabama, Mississippi and Texas.

New England Trawler, which began more than 65 years ago supplying deck and trawler equipment to the New England fishing fleets, has become known over the years for building rugged winches, windlasses, capstans and cranes for both the commercial and governmental maritime sectors.

In recent years, NETEC has also built double drum towing winches and other similar deck machinery for oceangoing tugs, towboats, and oceanographic survey boats, in addition to designing and building central hydraulic powered deck machinery systems on numerous liquid and bulk cargo barges.

New Publication, 'Crisis Management,' Available From AWO

The long-awaited publication "Crisis Management for the Inland and Coastal Tug and Barge Industry," is now available for purchase from AWO.

"Crisis Management" provides over 100 pages of pragmatic, hands-on information that will help barge and towing industry companies to deal effectively with the unexpected. The publication focuses on the communications and logistical aspects of crisis response planning, including the process that links the various parties which make up the total crisis scenario, including management, crews, response teams, federal state and local authorities, contractors and local citizens groups. The book will also assist tug and barge industry companies in proper and effective communications with the media. Handling these elements during a crisis can make a vast difference in the effect the incident will have on employees, the general public and the environment.

The publication is comprised of edited transcriptions from the AWO Crisis Management Seminar in Houston in December 1990, and from the Public Affairs seminar, "Dealing With the Media in a Crisis," which took place in September 1988 in San Francisco.

It provides a comprehensive treatment of company readiness and crisis prevention, media relations during an emergency, working with federal and state authorities, and includes a detailed case study of the explosion of the M/V Jupiter on the Great Lakes, a crisis that had the potential for severe pollution and fire damage, but that has become a classic case of effective crisis management.

Many of the presentations include reproduc-

Lykes Asks MarAd For Authority To Act As Agent For Di Gregorio

Lykes Bros. Steamship Co., Ltd., has asked the Maritime Administration for authority to act as general agent for Di Gregorio Navegacao Ltd. (De Gregorio) in the trade between the east coast of South America and the U.S. A notice of the application, assigned Docket 882, will be published in the Federal Register.

In the application, Lykes indicated that it was approached by De Gregorio, a Brazilian company, to act as their general agent throughout the U.S. and to appoint on their behalf subagents as necessary in the U.S. to represent their soon-to-be-initial services. The Brazilian company has been granted operating authority by the Brazilian government to initiate a liner service to the U.S. and has contracted for two RO/RO vessels presently under construction in Brazil. It would begin its service with chartered breakbulk/container vessels.

The principal components of the Di Gregorio service in the initial stages would be the breakbulk components, which Lykes states will not be competing with any American-flag services. If service to the Gulf is initiated, it would only compete with breakbulk services presently provided by Lykes on an inducement basis, Lykes said.

Lykes said that the revenue earned as a result of the agency agreement would contribute to its overall operating results by allowing Lykes to recover overhead costs that would otherwise have to be shouldered completely by Lykes.

ible camera-ready charts that can be turned into overlays for effective company presentation. In addition, valuable appendices are included such as a Vessel Data Sheet, a Sample List of Local News Organizations a company should have on file, and a sample Standby Media Statement.

"Crisis Management for the Inland and Coastal Tug and Barge Industry" is available to nonmembers of the association for \$37.50 per copy plus \$2 postage. Make check payable to The American Waterways Operators, 1600 Wilson Boulevard, Suite 1000, Arlington, Va. 22209.

For more information concerning "Crisis Management," contact **Tia Fisk** at (703) 841-9300.

New Tacoma-Based Yard Opens; Will Offer Construction And Repair

A new shipbuilding and repair facility was recently formed to offer construction up to 200 feet and haul out and dockside repair.

Called Puglia Shipbuilding Inc., the Tacoma-based firm was established in December 1990 to complete the construction of a 149-foot luxury motor yacht, Samantha Lin, after the contracted builder, Tacoma Boat Building, suffered financial setbacks.

Having assembled the shipbuilding talent in the Tacoma area and realizing the potential of this highly skilled labor force, the company has decided to pursue commercial shipbuilding and repair contracts while continuing its yacht construction operations.

For further information on Puglia Shipbuilding,

Circle 31 on Reader Service Card

Fassmer Completes Program Of Free-Fall And Rescue Boats



Fassmer's 13.7-foot rigid rescue boat is equipped with a gasoline-driven outboard engine and offers speeds exceeding 6 knots.

About seven years ago free-fall survival systems were introduced on small ships. Fr. Fassmer and Co. was one of the first manufacturers developing free-fall boats for these types of ship. Provided with approval tests in compliance with the latest regulations, these types are very successful in the market because they offer capacity for a maximum number of persons in relation to a minimum of space required.

Based on that successful design, a series of bigger free-fall boats was developed in order to meet with the growing demand for free-fall boats for larger and higher ships with capacity for a greater number of persons.

Very often only little space is available for the installation of free-fall boats. These new Fassmer types offer, however, accommodations for 34 persons, over a length of about 25.2 feet, or for 38 persons, over a length of about 27.8 feet.

The first boats have already been installed and tested on ships. Relying on the proven and successful design of other types of Fassmer lifeboats, these new types are equipped with a wide platform deck suitable for quick embarkation, salvage of floating persons and helicopter rescue. Gunwale and side handrails also provide for access alongside the boat. In combination with the platform deck, this also makes the boat suitable for tender and workboat service. Large freeboard and fair lines provide for optimum behavior in heavy seas.

Fassmer also prototype-tested a new rigid rescue boat with a length of 4.2 meters (about 13.7 feet), completing the free-fall package.

For more information and free literature from Fr. Fassmer,

Circle 47 on Reader Service Card

Shell's Auger TLP To Eclipse Previous Water-Depth Record

The Auger tension leg platform (TLP) which Shell plans to install in the Gulf of Mexico during 1993 in a world-record water depth of 2,860 feet will eclipse the previous water-depth record for any permanent production platform by more than 1,000 feet.

The Auger TLP has several unique features resulting from Shell's design philosophy and site-

specific requirements which give it its own personality. Auger's most striking new feature is its template-free ocean floor wellhead system with lateral mooring which enables the TLP to move around over the various wells.

The Auger will be the first Gulf of Mexico TLP to support a drilling rig and full complement of production facilities.

Carl L. Wickizer, who manages Shell's deepwater project engineering and construction in the Gulf of

Mexico, started in deep water in 1973, when deep meant 300 feet. "The challenge for the 90s is cost reduction through sound engineering to bring more deepwater reserves into production," Mr. Wickizer says in his abstract, "Auger and Beyond."

Shell is considering other systems as well as TLPs for future developments in similar and deeper waters than Auger. The speed of developing other deepwater reserves is linked more to economics than technology, as Shell sees no technologi-

cal barriers in water depths to a least 6,000 feet.

The design of a TLP was initiated within Shell in early 1989, when a follow-up appraisal well, 3D seismic tests and pre-development engineering studies confirmed the 1987 discovery of oil at Auger in almost 3,000 feet to be commercially viable. Based on Shell's current assessment, total gross ultimate recovery at the Auger prospect is estimated at about 220 million barrels of oil and gas equivalent.

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- Design specifications: Built to U.S.C.G. and ABS. Certified. Full set of drawings available.
- Complete Bridge of New Navigational Electronics, plus Global IIF Communications, Cellular Telephone, WeatherFax, Color TV (200 mi), and CD/Stereo System. Current FCC ship inspection.
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SMOOTH SAILING—USS Hue City (CG 66), the 14th of 19 Ticonderoga (CG 47) Class Aegis guided missile cruisers built for the U.S. Navy by Ingalls Shipbuilding division of Litton in Pascagoula, Miss., sails through the Gulf of Mexico during predelivery sea trials. The ship was delivered to the Navy by Ingalls in June, and was commissioned into the U.S. Pacific Fleet last month. As lead ship-builder for the Aegis cruiser program, Ingalls was contracted to build 19 of 27 ships authorized for construction. The five remaining cruisers being built by Ingalls are in various stages of production in the shipyard. Ingalls is also building DDG 51 Class Aegis guided missile destroyers, with eight ships under contract.

For free literature detailing the facilities and capabilities of Ingalls Shipbuilding division of Litton,

Circle 34 on Reader Service Card

Coast Guard Rules Would Require Vessels To Respond To Spills

In an Advanced Notice of Proposed Rulemaking (ANPRM), the Coast Guard is asking the public to comment on the development of regulations that would require all domestic and foreign vessels that carry oil as cargo in U.S. waters to have an oil spill response plan and on-board oil spill removal equipment.

Each vessel's response plan would have to address a "worst-case" spill. Vessel owners and operators would be required to ensure the availability of personnel and equipment necessary to respond to a discharge of the vessel's entire cargo in adverse weather conditions.

The regulations were mandated by Congress in the Oil Pollution Act of 1990 in an effort to minimize the impact of oil spills.

After February 18, 1993, a vessel would not be allowed to handle, store or transport oil unless it has

submitted a response plan to the Coast Guard for approval. After August 18, 1993, the same operating restrictions would apply to vessels not in compliance with that plan.

A vessel could continue operating for up to two years pending approval of its plan if the owner or operator can certify that adequate private personnel are available to respond to a worst-case spill.

The Coast Guard also is seeking comment on the type, quantity and capacity of the on-board oil spill cleanup equipment vessels must carry. The regulations under development would provide for periodic inspection of the equipment and establish inspection standards.

The ANPRM was published in the August 30, 1991 edition of the Federal Register. Copies may be obtained from the Coast Guard by calling (202) 267-6740.

Comments should be mailed to the Executive Secretary, Marine Safety Council, G-LRA-2/3406, U.S. Coast Guard Headquarters, 2100 Second Street, SW, Washington, D.C. 20593-0001 on or before October 17, 1991. For additional information call (202) 267-1477.

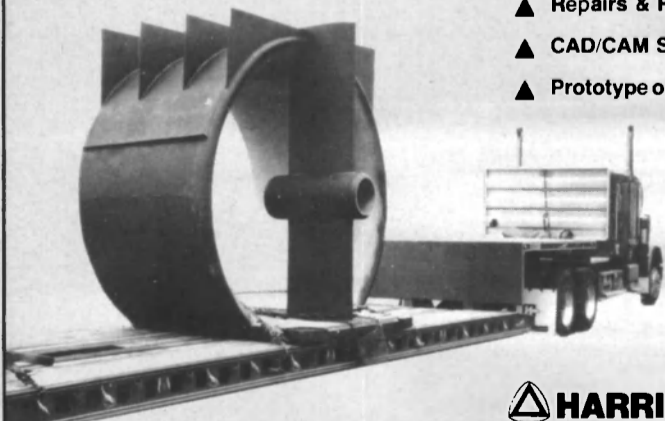


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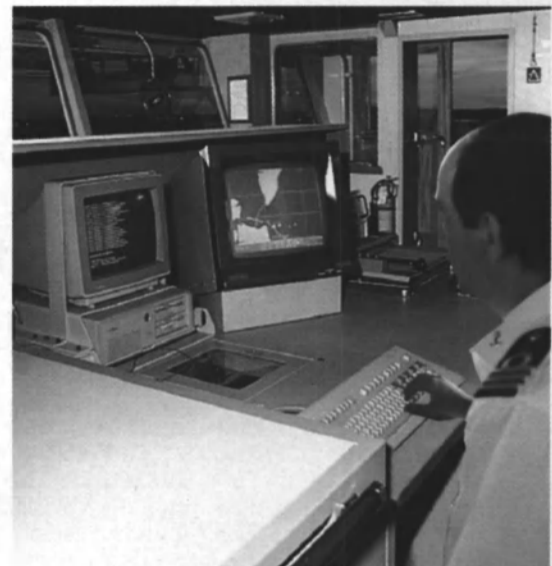
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Maritime Reporter/Engineering News

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Circle 326 on Reader Service Card

Boats & Barges



The 19-foot all-aluminum fireboat delivered to the Grapevine Fire Department in Texas.



The 26-foot Cummins-powered fire/rescue craft delivered to Cincinnati.

SeaArk Marine Delivers Aluminum Fireboats To Texas, Ohio Owners

SeaArk Marine, Inc., of Monticello, Ark., recently delivered two new all-aluminum fire/rescue boats to fire departments in Texas and Ohio.

A 19-foot aluminum fireboat was recently delivered to the Grapevine Fire Department in Grapevine, Texas. The fire/rescue craft is equipped with an American Godiva GP-1600, 50-hp self-contained pump which delivers 500 GPM at 100 psi to an Akron #3526 monitor. The 7 foot 6 inch wide boat is trailerable and powered by a 155 hp OMC outboard motor. Grapevine's boat fea-

tures a center console and is outfitted with hydraulic steering, aft dive platform, search light, Fathometer, siren/PA system and two 27 gallon fuel tanks. The fireboat will be working on Grapevine Lake and Lake Lewisville in the Dallas area.

The City of Cincinnati recently accepted delivery of a 26-foot fireboat. The trailerable craft is powered by a Cummins 6BTA5.9M2 diesel engine coupled to a Hamilton 271 waterjet. The fire/rescue boat will operate at speeds in excess of 35 mph. The fire system on the all-aluminum fire/rescue boat consists

of a Cummins four-cylinder diesel engine, model 4BT3.9, connected to a Hale 50 FB pump, with pumping capacity of 1,000 gpm at 150 psi.

SeaArk Marine, Inc., formerly MonArk Boat Company, manufac-

tures fire/rescue boats up to 50 feet in length, as well as other type workboats.

For free literature detailing the full line of work craft available from SeaArk Marine,

Circle 97 on Reader Service Card

Target Enterprises Introduces Waterborne Urethane Varnish System

Target Enterprises, manufacturers of ecologically safe marine products, has added to its rapidly growing line, the WB 2000 series, a waterborne interior urethane varnish system. Announcement of the new series was made recently by Jeff Weiss, vice president of the New Jersey-based company. The line includes a sanding sealer and interior high gloss and matte finish urethanes.

According to Mr. Weiss, "Recent advances in the durability and longevity of waterborne urethane films have enabled us to develop a line of interior marine coatings that provide a wide range of benefits—both environmental and labor saving."

The WB 2000 sanding sealer is a brushable, deep-penetrating wood sealer designed as the first-stage coating for the WB 2000 system. The high gloss and matte urethanes are clear, non-yellowing finishes, with superior gloss retention and scuff/mar resistance. All are VOC compliant and provide safe, quick

cleanup.

For further information from Target Enterprises,

Circle 21 on Reader Service Card

I.M. Skaugen Spins Off Houston Subsidiary

I.M. Skaugen, Norway's second-largest shipping company, has spun off its Houston-based oil and chemical-tanker subsidiary, Jahre Shipping (USA) Inc., as an independent company. The new company is called Skaugen PetroTrans.

According to J.H. Paus, the decision was approved at I.M. Skaugen's annual meeting in Oslo.

Skaugen PetroTrans begins independent operations with assets of more than \$200 million. Mr. Paus, as president and CEO, continues to direct the company's commercial activities. The existing Houston-based staff becomes the nucleus of the new Skaugen PetroTrans organization.

Mr. Paus said the new company will continue to specialize in the shipment of oil and chemicals, worldwide lightering, and the rescue of ships in distress.

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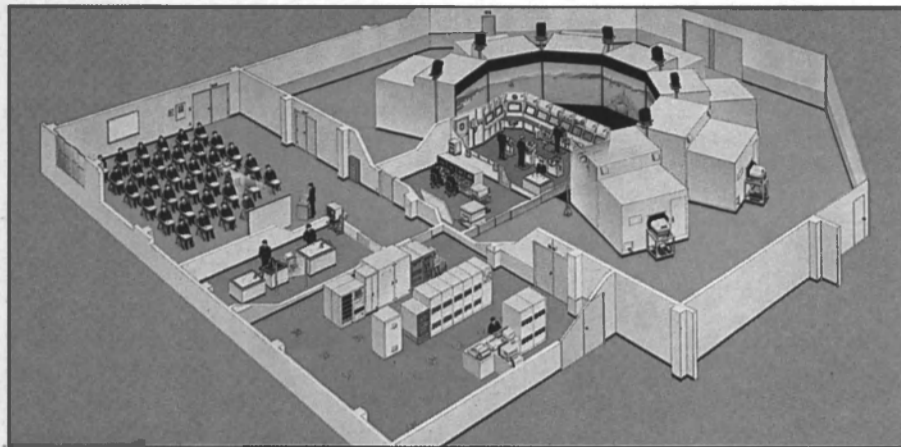
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Navigation Training Simulator System Delivered To Japan's Defense Force Service School By IHI



General layout of IHI's Navigation Training Simulator System.

Ishikawajima-Harima Heavy Industries Co., Ltd. (IHI), Tokyo, Japan, manufactured a Navigation Training Simulator System "Navigation Trainer (NAT)" and recently delivered it to the No. 1 Maritime Self Defense Force Service School.

The system simulates the scene from bridge, ship's motion and the operation of nautical instruments used in navigation. The purpose of this system is to improve the ship operating and handling skills of naval officers in the Maritime Self-Defense Force, and also to be used for research on navigation methods,

casualty and other maritime situations.

In 1975, IHI manufactured and installed the first ship-handling simulator in Japan at the Tanashi plant. Since then, they have supplied several systems for training centers and research institutes in Japan and abroad, thereby gaining a high reputation in the field of ship-handling simulator.

This is the first ship-handling simulator delivered to the Maritime Defense Force. Needless to say, the NAT has the one of the highest levels of function and performance

available in the world.

The NAT consists of a bridge, which is identical to an escort ship's bridge (52DD), a CIC room, an instructor's room, a computer room, an environment simulation room and a briefing room.

Main components of the system are as follows:

(1) Bridge—Steering stand, speed and revolution indicator, gyrocompass repeater, engine telegraph, radar display, communication equipment, etc.

(2) CIC room—Radar display, DRT, communication equipment, etc.

(3) Instructor's room—Instructor's console, hard copy device, etc.

(4) Computer room—Main computer, nautical instrument interface, radar signal generator, computer generated imagery (CGI) system, sound simulation system, etc.

(5) Environment simulation room—Seven large screens (150 inches), speakers for simulated sound generating system.

(6) Briefing room—Projector, screen, etc.

For free literature giving full information,

Circle 10 on Reader Service Card

Sperry Marine Announces New Australian Sales And Service Agent

Sperry Marine Inc. vice president John V. DeMaso recently announced the appointment of Honeywell, Ltd., Waterloo, New South Wales, Australia, as Sperry Marine's new sales and service agent in Australia and New Zealand.

Honeywell brings extensive marine experience to Sperry Marine's many long-term customers in Australia and New Zealand, Mr. DeMaso said, and will provide unparalleled customer support and service turnaround. Honeywell will be responsible for all Sperry Marine products, both commercial and defense related.

Sperry Marine, headquartered in

Charlottesville, Va., is a subsidiary of Newport News Shipbuilding, a Tenneco company.

Delaware Firm Seeks MarAd Approval To Sell Mobile Drilling Unit

The Maritime Administration (MarAd) has received an application from Sedco-Oxy 605 Partnership, Wilmington, Del., for permission to sell the Liberian-flag drilling unit SEDCO 602. The proposed purchaser is Triton Holding Ltd., British Virgin Islands.

If approved, the 1983-built 4,836-dwt vessel would be used in mobile offshore drilling operations.

MarAd permission is required under section 9 of the Shipping Act of 1916, as amended.

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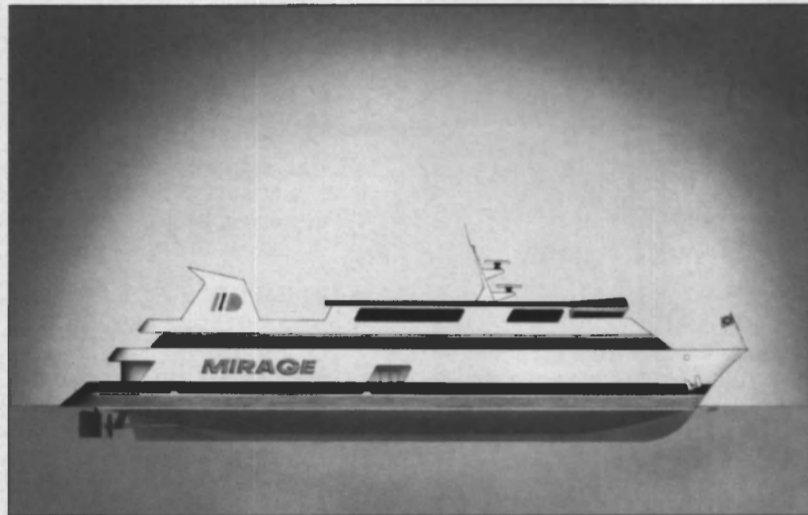
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Built to transport 349 passengers for a construction project in Boston, the 104-foot "Laura" is a 23-knot, all-aluminum passenger ferry. Other versions of this hull configuration, with different superstructures, are available for the dinner and cruise sightseeing markets.

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MCM-14 KEEL-LAYING AT PBI—Keel-laying ceremonies were recently held for MCM-14 at Peterson Builders, Inc., Sturgeon Bay, Wis. Principals in attendance at the shipyard ceremony were, left to right: **Richard Simon**, Sturgeon Bay Navy Supervisor of Shipbuilding Contract Officer; **Richard Russell**, PBI vice president of manufacturing; Comdr. **Charles Cadwell**, USN, Sturgeon Bay Project Officer; **Thomas O. Kerley**, vice president and general manager of Peterson Builders, Inc.; Capt. **Dan Welch**, USN, Sturgeon Bay Supervisor of Shipbuilding; and **Steve Propson**, PBI hull superintendent. MCM-14, to be known as Chief, is the 11th 224-foot Mine Countermeasure Ship under contract at PBI with the Naval Sea Systems Command. For free literature detailing the facilities and capabilities of Peterson Builders,

Circle 51 on Reader Service Card

Hvide Announces New Senior Vice Presidents

Hvide Shipping, Incorporated recently announced the promotion of **Gerald Farmer** to senior vice presi-

dent of finance and administration, and **Eugene F. Sweeney** to senior vice president of operations. They will report directly to **J. Erik Hvide**, president and chief executive officer.

In his new position, Mr. Farmer

will be responsible for all financial, legal, business development, human resources and administrative functions for Hvide and its affiliates. He will retain his responsibilities as chief financial officer and continue to administer employee insurance benefit plans.

As senior vice president of operations, Mr. **Sweeney** will be responsible for all Hvide marine activities including Hvide's harbor docking.

Mr. **Sweeney**, recently appointed to the National Research Council Committee on Advances in Navigation and Piloting, is a past president of the Chemical Carriers Association and is an active member of the American Institute of Merchant Shipping.

NKK Upgrades Tsu Yard To Meet Growing Demand For Double-Hull Tankers

In response to the growing demand for double-hull tankers, NKK Corporation of Japan will channel a minimum of \$36.5 million into its Tsu yard.

The object of the program is to raise levels of efficiency and productivity at the yard so as to be able to reduce the building time for the more steel-intensive new generation of double-skinned tankers.

Construction of a conventional, single-skin VLCC at present typically takes about 15 months, with a

double-hull vessel requiring a further three months.

By adapting and modernizing dock and berth facilities at the Tsu complex, NKK is looking to trim the building time for the double-shell crude carrier to 15 months.

The area dedicated to the construction of double-hull tankers will cover 30,000 square miles and be served by new, high-capacity cranes and steel processing equipment. Particular attention will be given to the scale of block assembly work.

The diversified orderbook at NKK includes LPG carriers, a new, small design of LNG carrier, VLCCs, large bulkers and an innovative class of coastal RO/RO. The yard is due to lay the keels of two double-skinned 290,000-dwt VLCCs before the close of the year, with delivery scheduled for the latter part of 1993.

For free literature on the facilities and capabilities of NKK,

Circle 43 on Reader Service Card

ZF NA Opens Gulf Coast Marine Sales Office

The Marine Division of ZF of North America has opened a Gulf Coast regional sales office in Covington, La., **Ken Petrowski**, sales manager, has announced.

The office is staffed by **W.G. (Gary) Roberts**, marine account manager. Mr. **Roberts** previously serviced Gulf Coast accounts from ZF NA's Marine Division headquarters in Lincolnshire, Ill.

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International Marine Offers 'Environmentally Friendly' Intersmooth Tin-Free SPC

Environmental concern over the use of antifoulings containing tin in the marine industry is pushing vessel operators more and more toward using tin-free antifoulings. Today, ship operators can enjoy nearly all of the benefits of tin-containing self-polishing copolymer (SPC)

antifoulings with one of the world's first tin-free SPCs, International Marine Coatings' Intersmooth Tin-Free SPC.

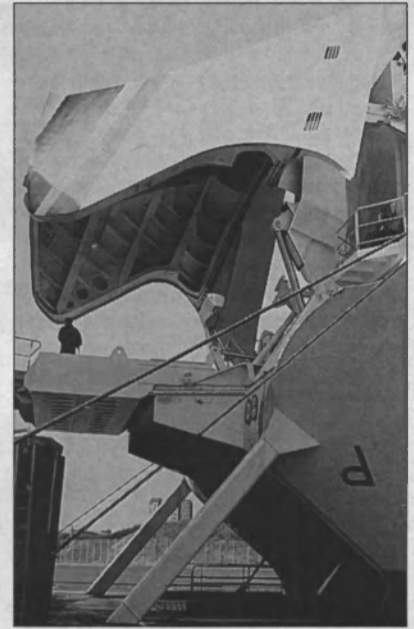
With worldwide legislation on the application and use of tin-containing antifoulings increasing, what does the future hold for ship operators as regards tin legislation and waste disposal costs? Some operators may still want to stay with tin-containing antifoulings, as their dry-docking policy is flexible and they can repair in countries not currently

affected by tin legislation. But what if they have to carry out an emergency drydocking?

For ship operators requiring complete operational flexibility and the peace of mind of being "environmentally friendly," the answer is simple—convert immediately to tin-free antifoulings.

For free literature giving more information on International Marine Coatings' Intersmooth Tin-Free SPC,

Circle 46 on Reader Service Card



KVAERNER TAKES A BOW—Entry to the vessel Stena Challenger is provided by Kvaerner-designed bow-access equipment, comprising bow visor, bow ramp, upper vehicle deck flap and vertical sliding bulkhead door. Stern access is via a sliding stern door. The first newbuilding for Sealink for 10 years, the Stena Challenger is one of four sister ships ordered from the Norwegian yard of Fosen Mek Verksted—two for Turkish Cargo Lines and two for Stena. All four have been specified with Kvaerner RO/RO access equipment from Kvaerner Ships Equipment AB of Gothenburg, Sweden. Designed primarily as a freight RO/RO, the Stena Challenger was modified during construction to enable her to carry a maximum of 500 passengers. In her passenger ferry guise, she will act as a relief ship on the Dover-Calais service during the summer high season.

For free literature on products from Kvaerner Ships Equipment, Circle 50 on Reader Service Card

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sta • bil • i • ty / n 1 : the quality, state, or degree of being stable; as a : the strength to stand or endure : FIRMNESS b : the property of a body that causes it, when disturbed from a condition of equilibrium or steady motion, to develop forces or movements that restore the original condition 2 : the dramatic effect of NAIAD roll stabilizers on a vessel at sea.

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Circle 310 on Reader Service Card

Ingersoll-Rand Expands Cyclone Series Of Finishing Tools

The Power Tool Division of Ingersoll-Rand Company has introduced a new, hand-held cutting instrument to its Cyclone Series of high-performance, ergonomically designed finishing tools.

Designed for use in the fabrication, general assembly and maintenance, shipbuilding and utility industries, the CycloCut tool can be used for material trimming, cutting and notching. The new tool features 3- and 4-inch wheels that can cutout ruptured pipes, grind welds, cut sheet metal and trim edges of metal, plastics, wood, composites and other materials.

The CycloCut tool is adapted from the Cyclone grinder line. The new tool is available in four models with .35-horsepower to 1-horsepower motors, and operating speeds ranging from 13,500 rpm to 25,000 rpm.

For further information and free literature on the CycloCut tool from Ingersoll-Rand,

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Mobil Oil Creates New 'Working Laboratory'

Mobil Oil Corporation recently unveiled a "working laboratory" named Explorer at its refinery at Notre Dame de Gravenchon, France.

Centerpiece of the laboratory is a 5,550-hp Sulzer 6 RTA 38 crosshead marine diesel engine which will help Mobil engineers make advancements in lubricant technology, engine performance and protection of the environment through reduced

exhaust emission.

The Explorer engine is identical to hundreds of engines operating in vessels on the high seas, although special instrumentation has been installed to provide accurate performance readings. It is fully equipped with a system for on-line piston ring wear measurement; liner temperature is monitored continuously through liner temperature sensors. The cylinder lubrication system is so arranged that three formulations of cylinder oil can be evaluated at the same time in order to cross-

reference the results.

"The primary objective of such testing is to prolong the intervals between engine overhauls," said **Alban Eyres**, technical manager for Mobil International Aviation and Marine Sales Inc., Mobil's worldwide marketing and engineering operation for the marine industry.

"The major objective of these studies is to provide the marine industry with system oils that will outlast the life of the engine through proper care," Mr. Eyres added.

The Explorer engine is combined

with Mobil's fully equipped laboratory and engine test facilities on the same premises. This laboratory is capable of measuring lubricating oil condition as well as monitoring engine condition through metals analysis. A fully automated laboratory assesses the condition of the used oil.

For further information from Mobil Oil,

Circle 22 on Reader Service Card

New U.S. Company To Offer Propellers From France Helices

Cannes-based France Helices recently announced the formation of France Helices America, Eugene, Ore., which now offers the French firm's full line of propellers and products.

Producing propellers for over 80 years, France Helices uses computer design and computer-controlled milling machines on their Class S propellers to achieve an accuracy of better than 0.01 mm in the surface finish and shape.

In addition to Class S propellers, Class I and II are available up to 3.5 meters (11.5 feet) in diameter. Controllable pitch propellers are available up to 7 meters (23 feet) in diameter. France Helices also has several series of advanced surface piercing propellers up to 1.8 meters (6 feet) in diameter.

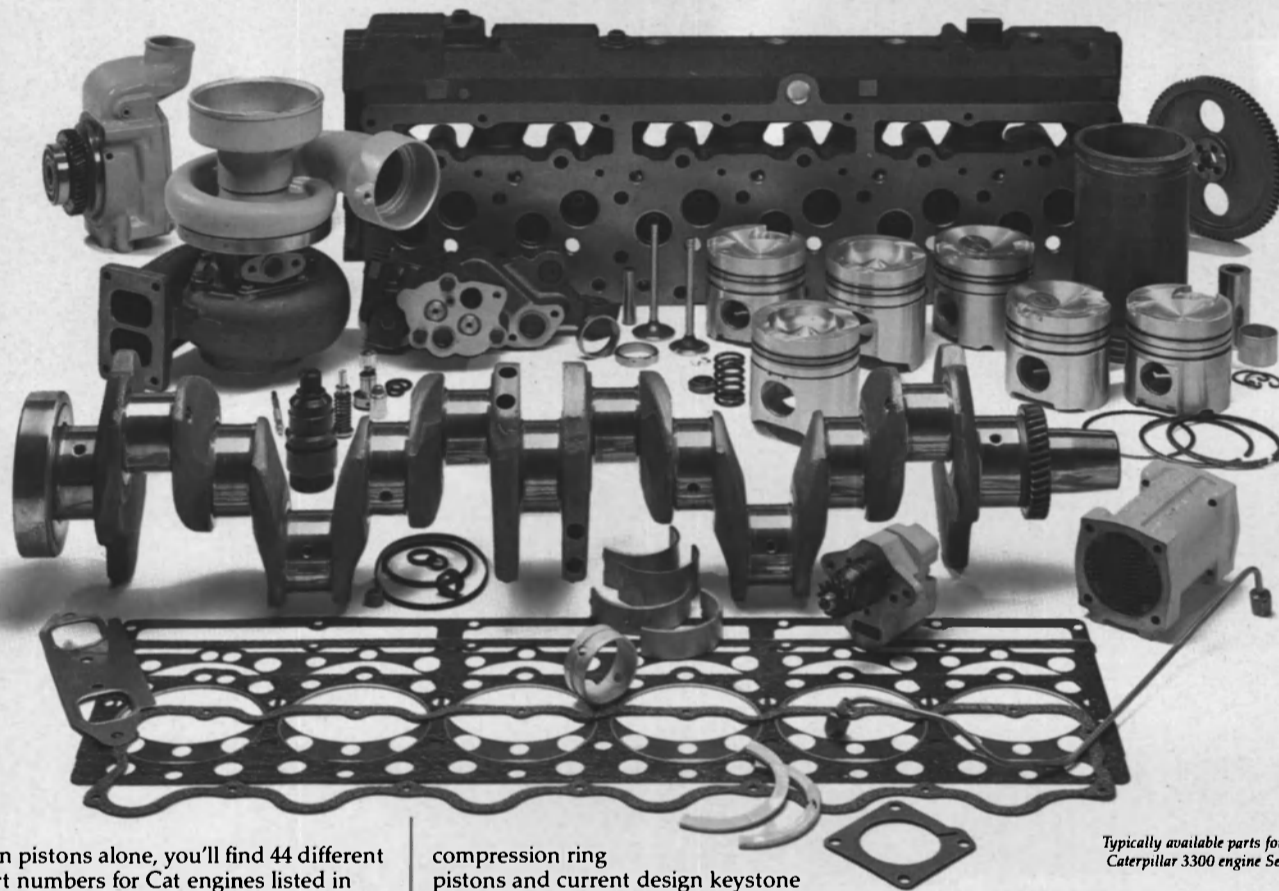
Jim Webb, general manager of France Helices America, reported that the new company has already received orders from such customers as Palmer Johnson, Broward Marine, Denison Marine, Tollycraft and Arneson Marine. In addition recent orders have been received for a large fleet of patrol craft from H/RI.

France Helices America is actively seeking qualified dealers throughout the U.S. and is currently negotiating with companies in Florida and New York for representation.

For additional information on France Helices America,

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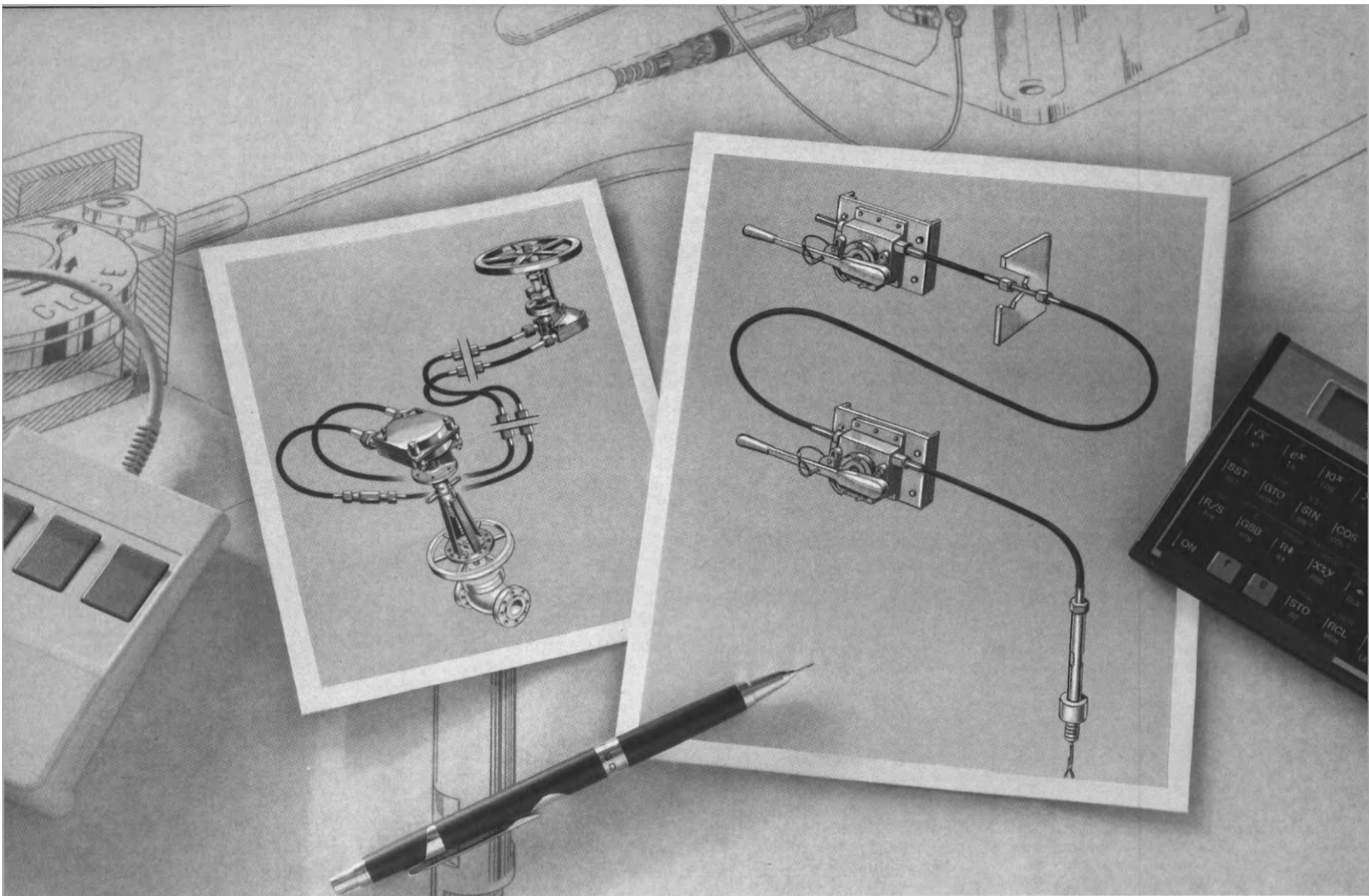
William K. Hellman To Serve As Maryland Port Commissioner

Governor **William Donald Schaefer** has selected former Secretary of Transportation **William K. Hellman** to serve in the Maryland Port Commission vacancy created by the resignation of commissioner **Jerome Geckle**.

In appointing Mr. Hellman for a three-year term, Governor Schaefer noted that Mr. Hellman, who is highly respected in the transportation industry, has been involved with port operations for well over a decade and has a strong view of the overall picture.

Mr. Hellman is presently a partner in the consultant engineering firm of Rummel Klepper & Kahl.

Maritime Reporter/Engineering News



Left: Remote Mechanical Valve Actuator. Right: Remote Trip Valve Actuator.

RMVA, and now RTVA Teleflex designs solutions for Remote Valve Operation

Engineering solutions aren't born. They're carefully designed. Consider RMVA, the Remote Mechanical Valve Actuator System from Teleflex, Inc. Naval Technologies Division.

The RMVA System serves as the industry standard for quality and performance in remote valve operation, and has been installed on virtually every ship class in the U.S. Navy.

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Teleflex has now found the solution to the problems long associated with Trip Valve Operators: the Remote Trip Valve Actuator System, or RTVA.

The RTVA System is designed first for survivability, as it eliminates shock-induced valve closures associated with the current cable/pulley systems.

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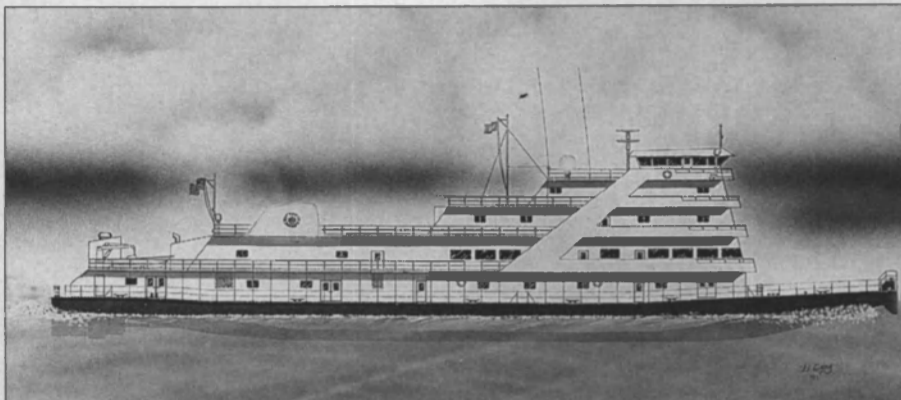
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Boats & Barges

Trinity Marine To Build Huge Towboat For COE



Artist's conception of the 241-foot Mississippi, reportedly the largest diesel-powered towboat ever built in the U.S.

Trinity industries, Inc., subsidiary Halter Marine, Inc., of Moss Point, Miss., has been awarded a \$21.8 million contract for the design and construction of a 241-foot towboat for the U.S. Army Corps of Engineers, Memphis District.

The new boat, to be called the Mississippi, will be built at Halter's Moss Point shipyard, with delivery scheduled for the end of 1992. Equitable Shipyards, Inc., New Orleans,

La., another Trinity shipyard, will provide pre-cut and painted steel.

According to **John Dane III**, president of the Trinity Marine Group, the 7,000-hp Mississippi will be the largest diesel-powered towboat ever built in the U.S.

With this contract, the Trinity Marine Group has recently won more than \$150 million in orders in the span of a week. Trinity previously won a \$130 million+ contract

from the Marine Spill Response Corp. for the construction of 12 spill response vessels (see story this issue).

The multipurpose vessel, which can tow or push up to sixteen 200-foot open hopper barges, will be used to inspect the inland waterways systems of locks, dams, and levees.

Overall, the boat will be 241 feet in length, with a 58-foot beam, and 12-foot 6-inch depth. Design draft is eight feet.

She will be powered by three diesel engines developing a total of 7,000 hp, and will have two large push knees.

In addition to the usual communications and navigation equipment, the Mississippi will also have a command/control center which will provide instantaneous communications to Corps of Engineers land-based

facilities.

A sophisticated computer system will provide visual data on the waterways system such as water flow, currents, vessel locations, etc.

The boat will also carry two 18-foot rigid hull inflatable boats for use by inspection teams.

In all, the towboat will have accommodations for up to 78 passengers, with quarters for Mississippi River Commission members, who will conduct meetings on board, and crew.

The Mississippi will be built alongside the \$38.4-million, 300-foot dustpan dredge Hurley, under construction for the Corps of Engineers at Halter-Moss Point. She will be completed in May 1993.

For free literature detailing the shipbuilding facilities of the Trinity Marine Group,

Circle 82 on Reader Service Card

MMC Adds Extra Safety Features To Its Vapor Hose C-L Couplings

A modified version of its C-L couplings that meets all U.S. standards for vaporless offloading of petroleum products is now in production by MMC International Corporation.

The new couplings are in full compliance with regulations that require vapor recovery lines to be clearly identified so that they cannot be mistaken for lines and hoses

carrying other liquids. In addition, they have USCG approval.

Capturing the tank-top fumes creates a safer workplace for employees and also keeps potentially damaging vapors from escaping into the atmosphere.

Like all other MMC couplings, these feature patented ratchet-type helical cam connections that lock in place quickly and cannot be loosened without a special tool.

For more information from MMC International,

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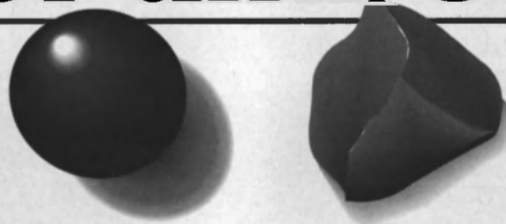
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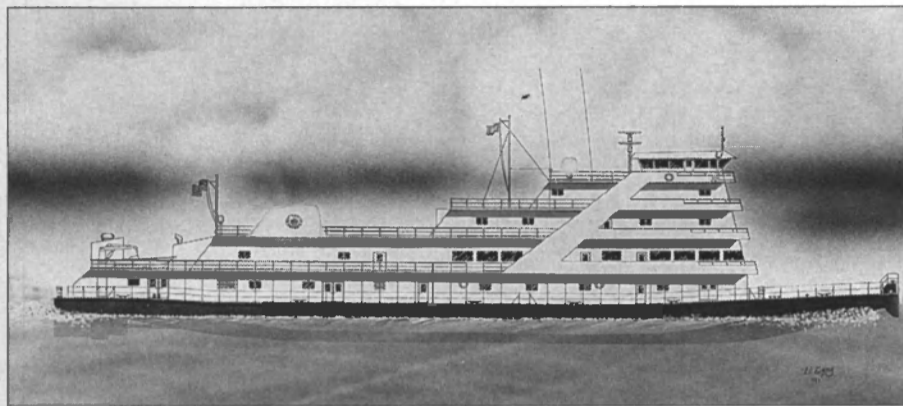


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Boats & Barges

Trinity Marine To Build Huge Towboat For COE



Artist's conception of the 241-foot Mississippi, reportedly the largest diesel-powered towboat ever built in the U.S.

Trinity industries, Inc., subsidiary Halter Marine, Inc., of Moss Point, Miss., has been awarded a \$21.8 million contract for the design and construction of a 241-foot towboat for the U.S. Army Corps of Engineers, Memphis District.

The new boat, to be called the Mississippi, will be built at Halter's Moss Point shipyard, with delivery scheduled for the end of 1992. Equitable Shipyards, Inc., New Orleans,

La., another Trinity shipyard, will provide pre-cut and painted steel.

According to **John Dane III**, president of the Trinity Marine Group, the 7,000-hp Mississippi will be the largest diesel-powered towboat ever built in the U.S.

With this contract, the Trinity Marine Group has recently won more than \$150 million in orders in the span of a week. Trinity previously won a \$130 million+ contract

from the Marine Spill Response Corp. for the construction of 12 spill response vessels (see story this issue).

The multipurpose vessel, which can tow or push up to sixteen 200-foot open hopper barges, will be used to inspect the inland waterways systems of locks, dams, and levees.

Overall, the boat will be 241 feet in length, with a 58-foot beam, and 12-foot 6-inch depth. Design draft is eight feet.

She will be powered by three diesel engines developing a total of 7,000 hp, and will have two large push knees.

In addition to the usual communications and navigation equipment, the Mississippi will also have a command/control center which will provide instantaneous communications to Corps of Engineers land-based

facilities.

A sophisticated computer system will provide visual data on the waterways system such as water flow, currents, vessel locations, etc.

The boat will also carry two 18-foot rigid hull inflatable boats for use by inspection teams.

In all, the towboat will have accommodations for up to 78 passengers, with quarters for Mississippi River Commission members, who will conduct meetings on board, and crew.

The Mississippi will be built alongside the \$38.4-million, 300-foot dustpan dredge Hurley, under construction for the Corps of Engineers at Halter-Moss Point. She will be completed in May 1993.

For free literature detailing the shipbuilding facilities of the Trinity Marine Group,

Circle 82 on Reader Service Card

MMC Adds Extra Safety Features To Its Vapor Hose C-L Couplings

A modified version of its C-L couplings that meets all U.S. standards for vaporless offloading of petroleum products is now in production by MMC International Corporation.

The new couplings are in full compliance with regulations that require vapor recovery lines to be clearly identified so that they cannot be mistaken for lines and hoses

carrying other liquids. In addition, they have USCG approval.

Capturing the tank-top fumes creates a safer workplace for employees and also keeps potentially damaging vapors from escaping into the atmosphere.

Like all other MMC couplings, these feature patented ratchet-type helical cam connections that lock in place quickly and cannot be loosened without a special tool.

For more information from MMC International,

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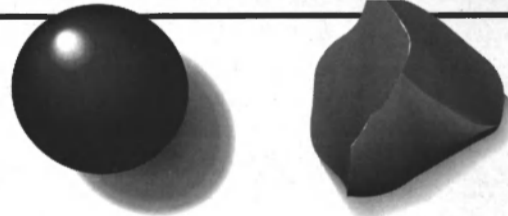
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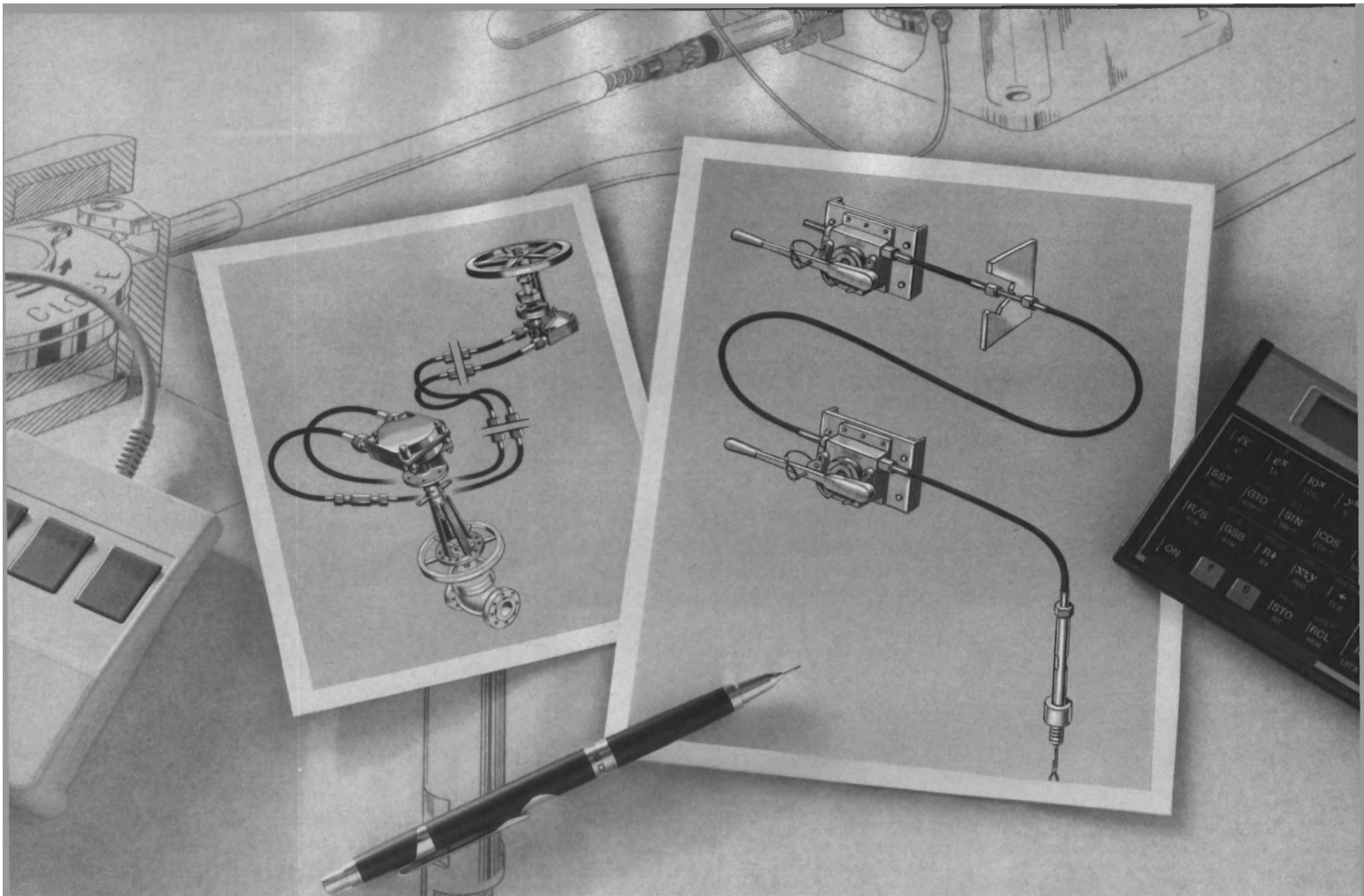
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Left: Remote Mechanical Valve Actuator. Right: Remote Trip Valve Actuator

RMVA, and now RTVA Teleflex designs solutions for Remote Valve Operation

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For RMVA Brochure, circle 319 on Reader Service Card. For RTVA Brochure, circle 320 on Reader Service Card.



2,800-TON HULL ROLLOVER—Bisso Marine Company, New Orleans, La., recently assisted North American Shipbuilding, LaRose, La., in launching an icebreaker weighing 2,800 tons. Three derricks, Cappy Bisso, Lili Bisso and Cairo, lifted a combined weight of 1,600 tons for the task. The vessel was then rolled into an upright position by the derricks Cappy Bisso and Lili Bisso. Bisso Marine Company has also just successfully completed the removal of four decks, four jackets and five well protectors from Ship Shoal 15 for Quintana Petroleum Corp. The explosive work was done by Kenny Enterprises and the project was overseen by Continental Engineering and Construction Services, Inc. In other work, Bisso Marine Company recently completed salvage operations on Avondale Industries Drydock at their Algiers facility on the Mississippi River. The drydock weighed 33,000 tons and was cut into four sections using anchor chain. The structure sustained heavy damage and sank when a ship struck it. The possibility of reconstructing the drydock is under study.

Marine Accommodations Named Agent/Distributor For BIP Joiner Package

Marine Accommodations, Inc., Jacksonville, Fla., has recently been established as the general agent/distributor of the BIP Joiner package for the U.S., Canadian, and European markets.

The BIP Joiner package consists primarily of a Rockwool core (bulkhead partitions/liner, continuous ceilings, floating floors, doors, pre-fab toilet/shower units, and CAD engineering/supervision). The company's custom contract furniture division can also accommodate customers' needs.

The system fulfills most international certification authorities and meets the requirements of SOLAS, the USCG, ABS, DnV, BV, DOT, LR, and GL, and has been supplied to over 1,000 vessels worldwide.

For a free brochure,

Circle 62 on Reader Service Card

Henschel Named U.S. Manufacturer Of Lyngso-Valmet ICS

Henschel Inc., Newburyport, Mass., has formalized agreement in principle with Lyngso-Valmet Marine of Horsholm, Denmark, to manufacture automated machinery control systems in the U.S.

Henschel/Lyngso-Valmet systems allow fully automatic control of main engines as well as cargo and auxiliary systems. A modular approach to automated machinery control allows shipowners to choose the features that fit their needs and budget. Among the systems that can be automated are—main engine, main switchboard, engine room ventilation, ballast system, auxiliary engines and generators, and cargo control.

This modular concept allows vary-

ing levels of automation, from simple monitoring of the main engine, to automation at its fullest extent. A current example of full automation is the first Danish "Project Ship," the 16,600-dwt reefer Ditlev Lauritzen, which has been approved for operation with a crew of six.

Henschel, with over 70 years' experience in ship control and interior communications, feels that the choice of Lyngso-Valmet automation represents the latest development in machinery control technol-

ogy, and is a logical extension of Henschel's line of products for the U.S. commercial ship market. The agreement will include technology transfer arrangements and special liaison between Horsholm and Newburyport, with the U.S. support network being centered in Newburyport.

For free literature detailing Henschel ship control and interior communications products,

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- Design specifications: Built to U.S.C.G. and ABS. Certified. Full set of drawings available.
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The AN/SPS-64(V) Displays Lab at the Raytheon Training Center in Manchester, N.H.

Raytheon Training Center Offers Radar Courses To International Audience

Each year nearly 200 marine service engineers and vessel operators attend marine electronic courses offered at the Raytheon Training Center in Manchester, N.H. The training center, located in the modern New Hampshire Conference Facility, is near Raytheon Marine Company's headquarters in Hudson, N.H. The 4,000-square-foot Raytheon facility is equipped with every type of Raytheon radar, Automatic Radar Plotting Aid (ARPA), bridge integration system, and other navigation and communications equipment.

"By far the most popular pro-

gram today is the Raytheon Pathfinder/ST radar maintenance course," said **Rich Manney**, the training center's director. "Because these new state-of-the-art radars are being installed on more and more ships worldwide, operators want to learn the difference between these new systems and radars using conventional PPI bright display. There is also a great deal of interest in retrofitting older radar by adding new displays."

Raytheon's Pathfinder/ST radars were introduced four years ago and have already been installed on thousands of ships, commercial vessels

and large yachts—more vessels than any other high seas radar of its kind, according to the company. With its Superior Technology (ST), Raytheon's Pathfinder/ST multi-stage signal processing and computer-generated sea and rain clutter suppression capabilities provide some of the highest levels of target detection possible.

In addition to offering advanced technical courses which cover maintenance and troubleshooting, systems integration, installation, etc., Raytheon provides basic commercial and small boat navigation and communication courses. The courses, which range from one to four weeks, are open to corporate customers, government agencies, and Raytheon dealers. To suit customer requirements, Raytheon also provides on-site instruction, either land-based or shipboard.

"Our training programs attract personnel, literally, from all over the world," said Mr. **Manney**. "At

one recent session, for example, we had participants from Ireland, Scotland, Norway, Sweden, Denmark, Germany, England, Saudi Arabia, Abu Dhabi (UAE), and the U.S. And this was a small class. We try to limit courses to 12 people to maximize 'hands-on' training given along with the classroom instruction."

Over 2,500 participants have attended Raytheon courses since the training center opened in 1976.

"The U.S. Coast Guard asked Raytheon to propose a training package when Bright Display Radars were introduced," said Mr. **Manney**. "The program snowballed. We scheduled a ten-week curriculum, but people kept requesting more. We formalized and expanded the program the following year." The roster now includes representatives from most U.S. seafaring government agencies.

For free literature detailing the Raytheon Training Center,

Circle 81 Reader Service Card

Coast Guard May Relax Citizenship Requirements For Oil Recovery Vessels

In a Notice of Proposed Rulemaking (NPRM), the U.S. Coast Guard is proposing regulations which would allow not-for-profit oil spill response cooperatives to document vessels which are at least 50 percent owned by U.S. citizens. This represents a relaxation of current rules which require 100 percent U.S. ownership for documentation of vessels for coastwise trade and is specifically directed to limited purpose vessels used in oil spill cleanup operations.

The regulations were mandated

by Congress in the Oil Pollution Act of 1990 as a means to improve responsiveness of oil recovery vessels for use in oil spill operations. The regulations include the procedures for applying for a limited coastwise endorsement.

The NPRM was published in the September 10, 1991 edition of the Federal Register. Copies may be obtained from the Coast Guard by calling (202) 267-6740 or the fax request line (202) 267-4624.

Comments should be mailed to the Executive Secretary, Marine Safety Council, G-LRA-2/3406, U.S. Coast Guard Headquarters, 2100 Second St., SW, Washington, D.C. 20593-0001 on or before October 24, 1991. For additional information, call (202) 267-1477.

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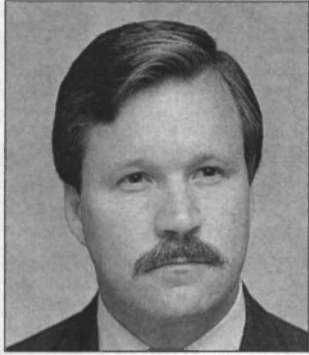
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**Norshipco Names
Robert D. Twine Sr.
Assistant VP**



Robert D. Twine Sr.

Norfolk Shipbuilding & Drydock Corp. (Norshipco) recently announced that **Robert D. Twine Sr.** has been appointed assistant vice president of production.

A 1975 graduate of Norshipco's Apprentice School, Mr. **Twine** has been assistant manager of the Berkley plant for six years. Prior to his current position, he was foreman of Norshipco's inside machine shop.

**Lykes Lines Names
Three Vice Presidents**

The board of directors of Lykes Bros. Steamship Co., Inc. has announced the election of three new vice presidents of the company.

Salvador J. Bruno has been named vice president, Latin American Division, pricing and marketing; **Charles B. Weymouth** has been named vice president, Latin American Division, liner services; and **Charlene R. Nides** has been named vice president, Atlantic Division, pricing and marketing.

**Stow Publishes New
Flexible Shaft Bulletin**

Stow Manufacturing Company, Binghamton, N.Y., has published a new bulletin, #8902 (REV. 2), covering Stow Standard Flexible Tool Shafts for grinding, polishing, and other finishing operations, standard flexible power drive flexible shafts, flexible shaft flexible couplings, and the new Stow "Panel Mount" flexible shaft flexible coupling.

Stow has also updated the flexible shaft torque ratings on their flexible shafts.

For further information and a free copy of Stow Bulletin #8902,
Circle 99 on Reader Service Card

**Magnavox Eight-Channel
Satcom System Installed
On Luxury Cruise Ship**

The twin-hull luxury cruise ship SSC Radisson Diamond will be the first vessel to be fitted with a high-

capacity eight-channel marine satellite communications system.

The Magnavox satcom system is being supplied under contract with the U.S. satellite communications service provider COMSAT Mobile Communications. The equipment will be installed this month at the Rauma Shipyard in Finland, where the ship is being built.

The system will provide simultaneous access to eight separate satel-

lite channels, each of which can be used independently for ship-shore voice, telex, computer data or fax transmissions. The system is derived from Magnavox's MX 2400 marine Standard A Inmarsat terminal and consists of eight functionally separate MX 2400 operator stations, each with its own CRT screen, keyboard and printer, connected to two stabilized 2.05-meter parabolic dish antennas, each sealed inside a

fiberglass radome.

A number of cruise ships have been fitted in recent years with Magnavox four-channel satcom systems. The Radisson Diamond will be the first to be equipped with an eight-channel system, according to Magnavox.

For more information and free literature from Magnavox,

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ILS Provides Large Data Base To Marine Buyers And Sellers

Inventory Locator Service (ILS), which provides an information link between buyers and sellers worldwide 24 hours a day, has expanded its marine parts data base to 1.3 million parts, it was recently announced by **Fred W. Meyer**, presi-

dent of ILS. He noted that the international market for the marine data base has been particularly strong.

As an independent provider of information, ILS does not participate in sales transactions. ILS helps clients locate or sell parts and services. Suppliers list their inventories on the ILS data base for access by buyers via a personal computer with modem or other communications hardware. By inputting a part number, clients can see which sup-

pliers have the part, learn the quantity and condition, and then can contact the seller directly.

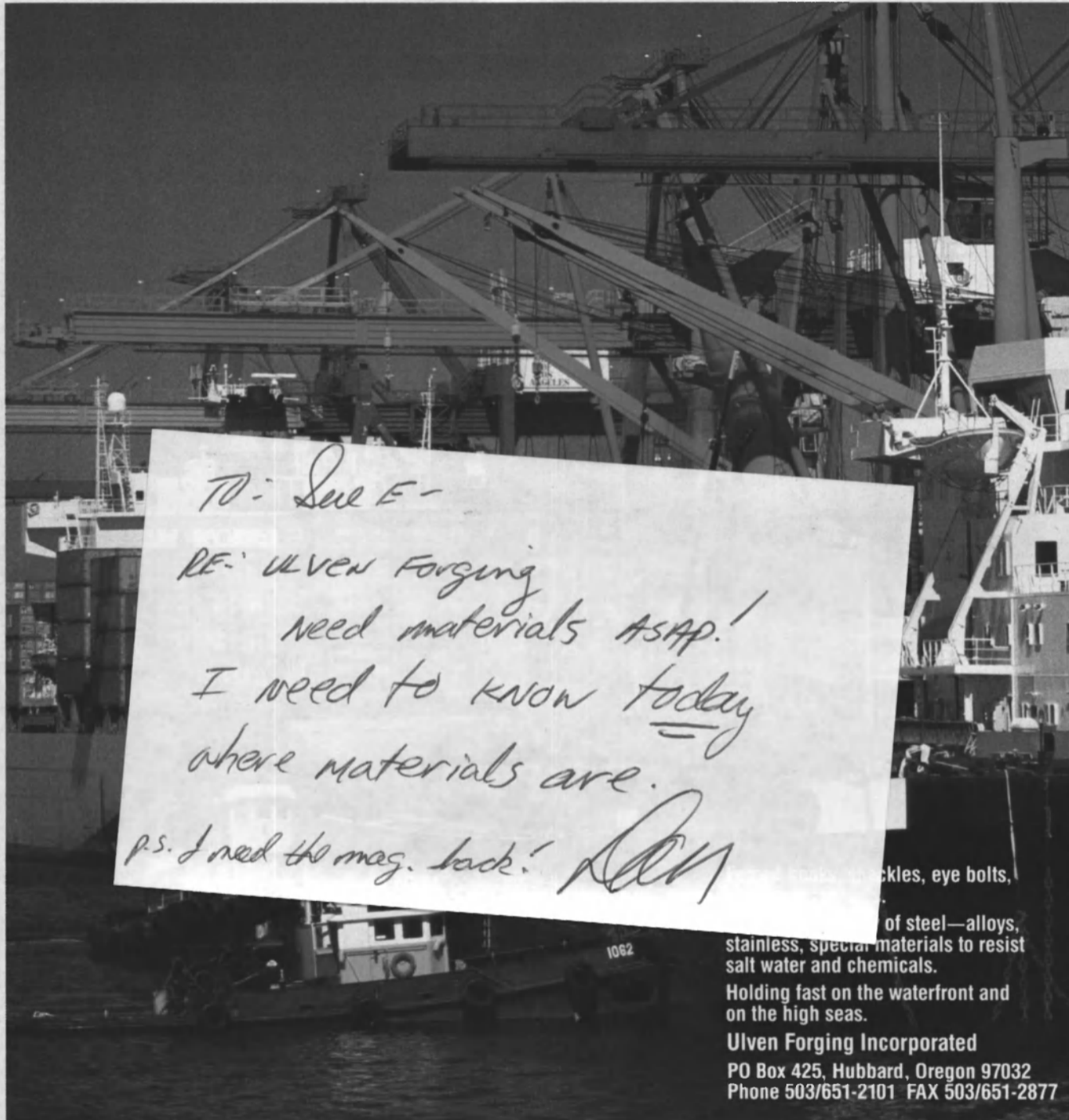
Clients in need of repair or overhaul services can select from over 90 categories—from air compressor overhaul to winch repair—and receive a list of firms that can provide those services. Listing repair or overhaul capabilities on the ILS data base is one of the easiest ways a repair shop can find new customers with little effort.

"The data base is designed to benefit all segments of the marine industry, including shipowners and operators, repair yards, distributors and manufacturers," Mr. Meyer said. "ILS services are an easy way to improve logistical support throughout the industry."

For complete details,

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ULVEN

Circle 220 on Reader Service Card

Raytheon Introduces Latest Satcom— Literature Available

The JUE-45A MKII Inmarsat-A Ship Earth Station (SES) from Raytheon offers advanced technology and enhanced capabilities. With a record of reliability, the JUE Series of SES is installed on over one-third of all shipboard systems worldwide, according to the company. Produced by Japan Radio Company, JRC SatCom systems are available exclusively from Raytheon Marine Company in North America and Europe.

The JUE-45A MKII SES provides 24-hour, two-way communication via telephone, fax, computer and other interfacing systems, anywhere in the world. In addition to standard features available to users with access to the International Maritime Satellite Organization's Inmarsat network of satellites, the JUE-45A MKII also provides many advanced features.

Two SES identification numbers are provided as standard, for example, so that one ID can be used for voice/telex messages and the second may be used for fax transmissions.

Other special features include the sending of confidential messages and an automatic ship position reporting system.

Raytheon has also introduced the model JUE-75A Inmarsat-C SES for those who do not require voice communication capabilities.

For free literature detailing the new JUE-45A MKII Inmarsat-A Ship Earth Station,

Circle 98 on Reader Service Card

Cla-Val Offers Eight-Page Quick Reference Catalog For Valves And Controls

Cla-Val Co., Newport Beach, Calif., is offering an eight-page Quick Reference Catalog for Valves and Controls used in shipboard piping systems.

Conveniently charted in the publication are military specifications, Cla-Val catalog number, shipboard system where used and sizes available.

For further information and a free copy of the Quick Reference Catalog from Cla-Val,

Circle 11 on Reader Service Card



The Oil Spill Liability Trust Fund

Estimate Fund Could Reach \$1-Billion In 1993

The Oil Pollution Act of 1990 significantly enhanced the nation's oil spill prevention and response activities and repealed or amended the oil spill provisions of several existing laws. For example, it changed the liability limits of spillers for oil spill removal costs and damages, required double hulls on most oil tankers, required additional contingency planning and preparedness by government agencies and potential spillers, and mandated federal direction of the cleanup of major spills.

Although OPA made the spiller primarily responsible for all spill response costs, up to the liability limit, it allows payment from the fund for costs covering such activities as federal oil spill removal efforts and the initiation of natural resource damage assessments. The Coast Guard then seeks to recover these costs from any party liable for the costs of the spill. OPA also authorizes payment from the fund for such costs when the spiller cannot pay or has reached its limit of liability, and allows the fund to compensate parties damaged by a spill when compensation is not available from the spiller (third-party claims).

The Department of the Treasury maintains all receipts and accounts for the fund according to established policies and procedures used to administer federal trust funds. Deposits into the fund totaled \$526.6 million through March 31, 1991. This amount consisted of transfers from previously existing pollution funds replaced by the fund and deposits from taxes, cost recoveries, penalties, and investment returns. Disbursements from the fund totaled \$14.3 million through March 31, 1991. According to Coast Guard officials, all disbursements were for federal oil spill removal expenses.

The President gave the Coast Guard authority to use the fund to pay federal oil spill removal costs under OPA. According to Coast Guard officials, the Coast Guard is currently developing regulations to administer these payments. Until these new regulations are issued, the Coast Guard is using procedures developed for a previously existing

pollution fund to pay federal spill removal costs. However, these procedures hinder federal agencies from recovering all of their spill removal costs for two reasons.

- The procedures do not adequately define the types of allowable costs to be paid by the fund or provide guidance on standards and methodologies that agencies should use in computing and recovering their costs. As a result, agencies have submitted inconsistent and incorrect claims for reimbursement in the past.

- The procedures do not allow for payment of the full cost of agency

third-party damage claims and the cost of initiating natural resource damage assessment studies, but no agency can pay these costs until the President delegates the authority to do so.

The Oil Spill Liability Trust Fund has received revenues from five sources: (1) balances transferred from three oil pollution funds terminated in 1990, (2) taxes on domestically produced oil and imported oil refined in the United States, (3) penalties levied by the Coast Guard for spill prevention regulation violations, (4) cost recoveries from the spiller or other liable party, and (5)

tax does not apply, however, in any fiscal quarter following a quarter in which the obligated balance of the fund reaches its \$1-billion statutory limit. A Treasury official estimated that the fund would reach this limit sometime in fiscal year 1993, assuming a major oil spill does not occur. Another agency, the Coast Guard, recovers federal spill removal costs from parties liable for oil spill costs and collects penalties for violations of its pollution prevention regulations. These receipts are also deposited into the oil spill fund.

As of March 31, 1991, the Oil Spill Liability Fund had reached more than one-half of its \$1-billion limit, beyond which no further taxes on domestically produced oil or imported oil refined in the United States will be collected. As of the same date, the Coast Guard had disbursed \$14.3 million.

The Coast Guard was delegated authority to use the fund to pay for federal spill removal costs and is using regulations written for the terminated 311(k) pollution fund to pay these costs. Federal agencies have not been reimbursed for certain costs because of deficiencies in these procedures. In addition, these regulations do not allow the payment of the full response costs now allowed under OPA. Unless the Coast Guard takes steps to improve these procedures and regulations, federal agencies involved in oil spill removal may not be reimbursed for all allowable removal costs.

The Coast Guard has not made payments from the fund for costs other than federal spill removal costs because the executive order delegating authority for implementing other aspects of the fund had not been issued as of July 15, 1991. Coast Guard officials said that they anticipated being delegated responsibility for paying for other spill-related costs covered by the fund, and once they are delegated the authority they will do so. Issuing interim regulations would help ensure that natural resource trustees and the public are aware of the availability of the fund and the proper procedures for seeking payment for these costs.

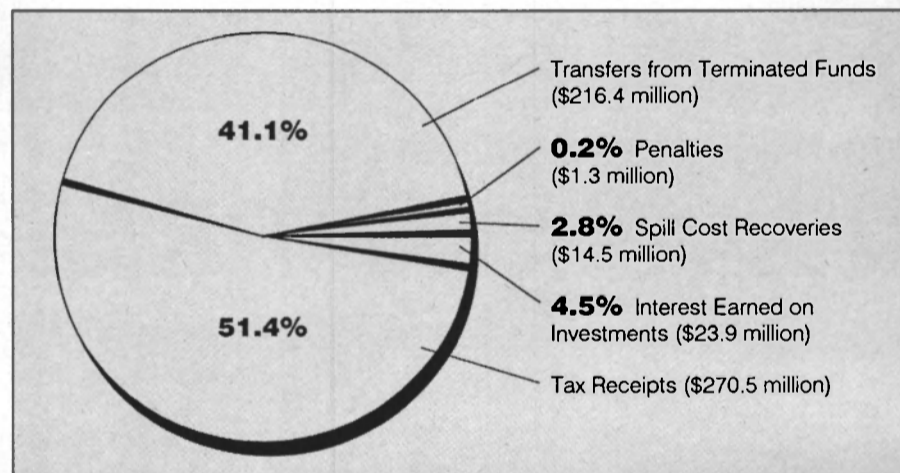


Figure 1: Sources of Revenues for the Oil Spill Liability Trust Fund (totals as of March 31, 1991).

personnel not normally involved in spill response, which OPA now allows. Consequently, agencies involved in oil spill removal will have to pay for these costs with money that would otherwise be available for other purposes or will have to request supplemental appropriations.

Finally, while the President has delegated to the Coast Guard the authority to use the fund for spill removal, as of July 15, 1991, he had not delegated the authority to make the fund available for other purposes authorized by OPA. Consequently, payments for costs for other purposes allowable under OPA have not been made. For example, OPA allows payment from the fund for

interest earned on fund investments. As of March 31, 1991, the fund had total deposits of \$526.6 million (see Fig. 1 for a breakdown of the amounts received from each source.). Tax receipts and money transferred from terminated funds accounted for most of these revenues.

Two agencies have collected revenues for the fund. One agency, the Internal Revenue Service, collects a 5-cent tax on each barrel of domestically produced oil or imported oil refined in the United States. Industry makes these payments every two weeks to the Treasury's general fund. According to Treasury officials, these oil spill fund receipts are transferred from the general fund to the oil spill fund each month. The 5-cent



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Upcoming Events

Bulk Carrier Casualties & Losses Seminar in Hong Kong, October 15. A seminar organized by the International Association of Dry Cargo Shipowners (Intercargo) focusing on research, responsibilities and remedies to the recent escalating number of bulk carrier casualties. For further information, contact Intercargo, 17 Bell Court House, 11-12 Blomfield Street, London EC2M 7AY, England; telephone: +44 71 638 3989; or fax: +44 71 638 3943.

Fish Expo '91 in Seattle, Wash., October 17-20. Exhibition and seminars arranged by National Fisherman. Event will be held at the Seattle Center and feature one of the largest exhibitions in the world on the commercial fishing industry.

Fall Meeting of Great Lakes & Great Rivers Section of SNAME, in Port Huron, Mich., October 18. Sectional meeting of the Society of Naval Architects and Marine Engineers will cover tanker grounding, future naval architecture technology, elements of modern yacht design and continuous slip marine hydraulic clutch design, installation and testing. For further details, contact: **Mike Parsons**, vice chairman, SNAME-Great Lakes Section, at (313) 763-3081.

Seatrade Expoship Riomar 91 in Rio de Janeiro, Brazil, October 21-25. Conference and exhibition organized by Seatrade. Held at Centro de Convencoes do Hotel Nacional. Contact **Michael Kazakoff**, phone: (609) 452-9414 or fax: (609) 452-9374.

Fleet Maintenance in the 21st Century in Virginia Beach, Va., October 22-23. Joint symposium sponsored by the Commander in Chief, Atlantic Fleet and American Society of Naval Engineers, at the Pavilion Convention Center. Technical papers regarding fleet maintenance management, engineering, logistics and training within aviation, surface and submarine fields will be presented. Contact **Lewis J. Friedrichsen, M. Rosenblatt & Son, Inc.**, 5700 Thurston Avenue, Suite 204, Virginia Beach, Va. 23455; phone: (804) 460-4449; or fax: (804) 464-2801.

Oil Pollution—Claims, Liability & Environmental Concerns in London, October 23. One-day seminar focusing on such issues as the U.S. Oil Pollution Act, international convention on oil pollution preparedness, and oil pollution spill response. Will be held at the Tower Thistle Hotel. For details, contact: **Legal Studies & Services Ltd.**, IBC House, Canada Road, London EC1A 2EX; telephone: 071-236-4080; or fax: 071-489-0849.

Permanent International Association of Navigation Congresses (PIANC) in San Francisco, Calif., October 23-25. Regional conference covering future changes and challenges for the U.S. port indus-

try. Held at the Fairmont Hotel. Phone: (202) 504-4312.

MHDS 91: International Symposium on Superconducting, Magneto-hydraulic Ship Propulsion in Kobe, Japan, October 28-31. Organized by Ship & Ocean Foundation, Tokyo, Japan. Held at the Portopia Hotel. Contact **Jetro New York** in the U.S. at (212) 997-0448.

IMAS-91 in Sydney, Australia,

November 11-13, 1991. The Institute of Marine Engineers will hold its Sixth International Maritime and Shipping Conference at the University of New South Wales. The theme of the conference will be high-speed marine transportation. Some 30 papers will be presented as part of the conference program. For further information, contact **L.J. Pandolini**, Honorary Secretary, IMARE, Sydney Branch, 58 Melba Drive, East Ryde, NSW 2113, Australia; phone: +61 2 878 1914; fax:

+61 2 8173703.

Panama Maritime 91 in Panama City, Panama, November 12-15. Conference topics will include the Panama Canal, marine pollution control, marine casualties, Panama ship registry and other open registries, and Panama's maritime court. Held at the Atlapa Convention Center. Contact the Panama Trade Bureau Inc., World Trade Center Panama, P.O. Box 6-2432, el Dorado, Panama City, Panama;

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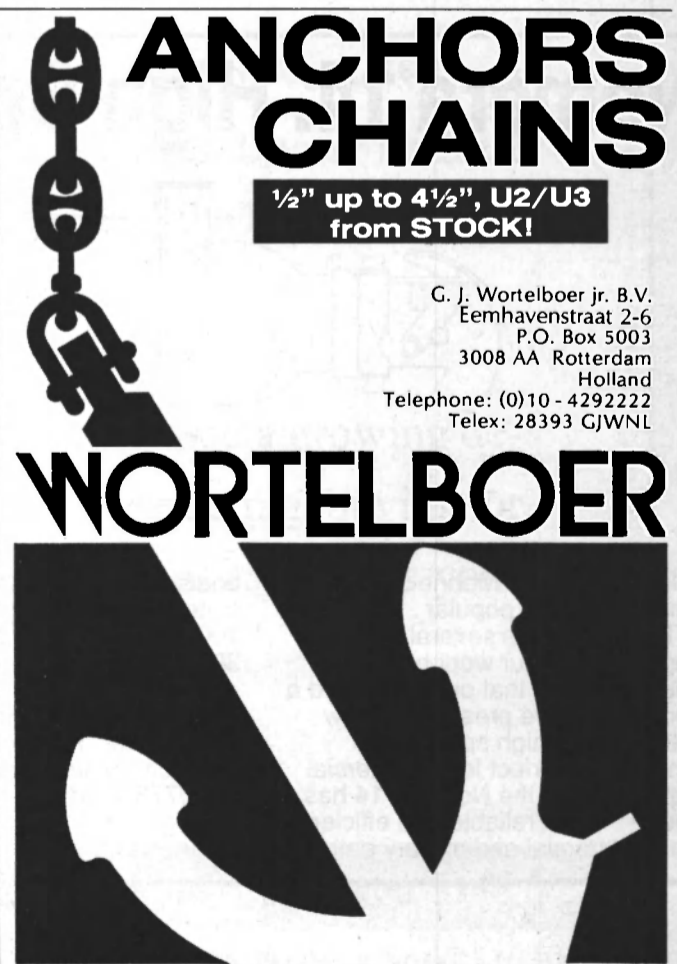
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Boats & Barges

Trinity Marine To Build 12 Spill Recovery Boats Under \$130 Million+ Pact

The Trinity Marine Group, Gulfport, Miss., of Trinity Industries, Inc., has been awarded a contract worth in excess of \$130 million to design and build 12 oil spill recovery vessels. The contract for the all-steel 208-foot boats was awarded by the Marine Spill Response Corporation (MSRC), Nashville, Tenn.

The quick response ships will be capable of operating in harbors, coastal areas, and open oceans to recover up to 1,900 barrels or 79,000 gallons of oil per hour.

The ships will be built at Trinity yards in Lockport, La., Escatawpa, Miss., and Beaumont, Texas. Current plans call for four ships to be built at each of the three yards, but final number will be determined by a manpower study.

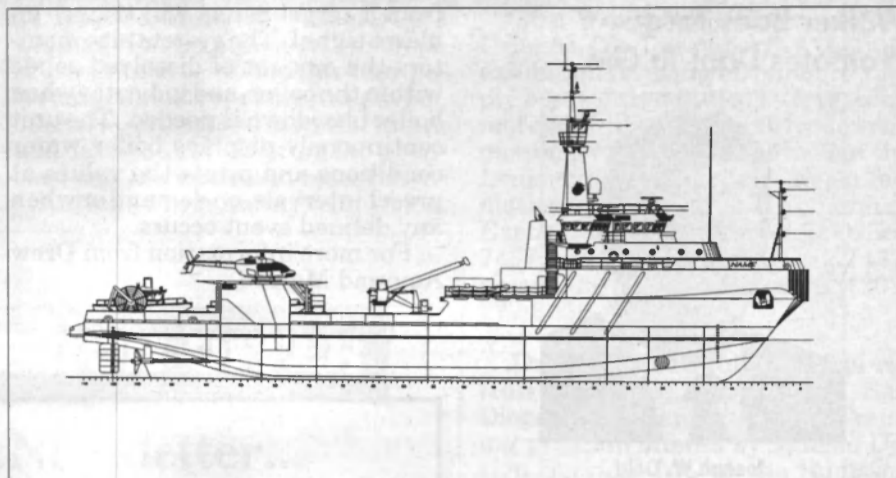
John Dane III, president of the Trinity Marine Group, said the contract was the largest single commercial pact in the marine group's history. He said all the vessels will be completed by February 1993, and the employment at Beaumont will

rise by about 200, and Lockport will add approximately 50 employees.

The OSRVs are designed to recover spilled oil up to 20,000 centistokes in viscosity. More simply stated, the Trinity ships will be able to retrieve anything from light oil sheen to heavy oil near the consistency of toothpaste, depending

TRINITY MARINE OIL SPILL RECOVERY VESSEL Main Equipment, Particulars, And Capacities

Overall length: 208 feet 6 inches
Beam: 44 feet
Depth: 17 feet
Displacement, full draft: 2,415 tons
Admeasurement: less than 500 gt
Main engines: (2) 1,280-hp diesels
(2) 32-foot boom boats
(2) 20-ton telescoping cranes
(2) 18-foot RIBs
Oil recovery capacity: 1,900 bbls/hour
Fuel oil capacity: 83,000 gallons
Fresh water capacity: 20,200 gallons



Outboard profile drawing of the new 208-foot oil spill recovery vessel being designed and built by the Trinity Marine Group. The Gulfport, Miss., shipbuilding group has a contract for 12 OSRVs.

on operating conditions.

The ships will be able to store up to 4,080 barrels or 171,000 gallons of recovered oil on board. The recovered oil will be pumped to towed barges or floating bladders for shoreside disposal.

Ten different oil recovery systems will be aboard each ship.

In many cases, the oil will be contained by booms stored aboard on large reels. The booms are deployed to encircle the oil slick by two 32-foot boom boats which are also carried aboard the OSRV.

An extensive hydraulic system will power all of the skimming systems, tugger winches, windlass, cranes, davit, and other equipment.

The OSRVs will be powered by two diesel engines developing a total of 2,560 hp. They will have a full

load top speed (without oil in the recovery tanks) of 12 knots at 80 percent maximum continuous rating.

Accommodating a crew of 38, the OSRVs will be equipped with a helicopter landing pad and an extensive on-board communications center which will link the ship to land-based operations centers and MSRC regional offices.

They will be homeported in Seattle, Wash., Long Beach, Calif., Lake Charles, La., Port Everglades, Fla., and the New York City metropolitan area for quick deployment to spill areas.

For free literature detailing the full vessel construction and repair capabilities of Trinity Marine,

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MSRC Purchases Spill Recovery Boats, Equipment Worth \$216 Million

Besides the large vessel construction contract award to the Trinity Marine Group, the Marine Spill Response Corporation (MSRC), Washington, D.C., also recently announced the purchase of other vessels and equipment to be used in response to major oil spills. With the Trinity contract, the MSRC announced more than \$216 million in vessel and equipment purchases.

MSRC president, retired Coast Guard Vice Adm. **John D. Costello**, announced contracts for construction of sixteen 208-foot offshore response vessels to both the Trinity Marine Group, Gulfport, Miss., a subsidiary of Trinity Industries Inc., and Bender Shipbuilding & Repair, Mobile, Ala. Halter will construct 12 of the vessels and Bender, four. These 16 vessels will be deployed around the continental U.S., Hawaii, and the U.S. Virgin Islands.

MSRC also announced the first in a series of equipment acquisitions. These contract announcements represent procurement of the major portion of MSRC's high capacity, offshore containment and cleanup equipment.

From Frank Mohn Houston, Inc. MSRC will purchase 16 Transrec 350 High Seas Recovery Systems. The Transrec 350 is an over-the-side high capacity skimmer.

From AllMaritim Contractors A/S of Bergen, Norway, MSRC will purchase 16 Fully Integrated Oil Containment Systems, commonly known as the Norwegian Oil Trawl 800. The Oil Trawl System is a boom containment system.

MSRC will also purchase 10 Three Weir Boom Skimming Systems and two Seawolf Heavy Oil Recovery Skimmers from Vikoma International Limited in Isle of Wight, England.

Hyde Products in Cleveland, Ohio, will provide MSRC with 10 DESMI Ocean, 58 DESMI DOP 250 Viscous Oil Transfer Pumps, and seven Eureka High Capacity Transfer Pumps. In addition, MSRC will purchase from Petro Boom Environmental in Valparaiso, Ind., 30 Vacuum Skimmers.

From the Texas Boom Company in Humble, Texas, MSRC will purchase more than 20 miles of Intertidal Boom.

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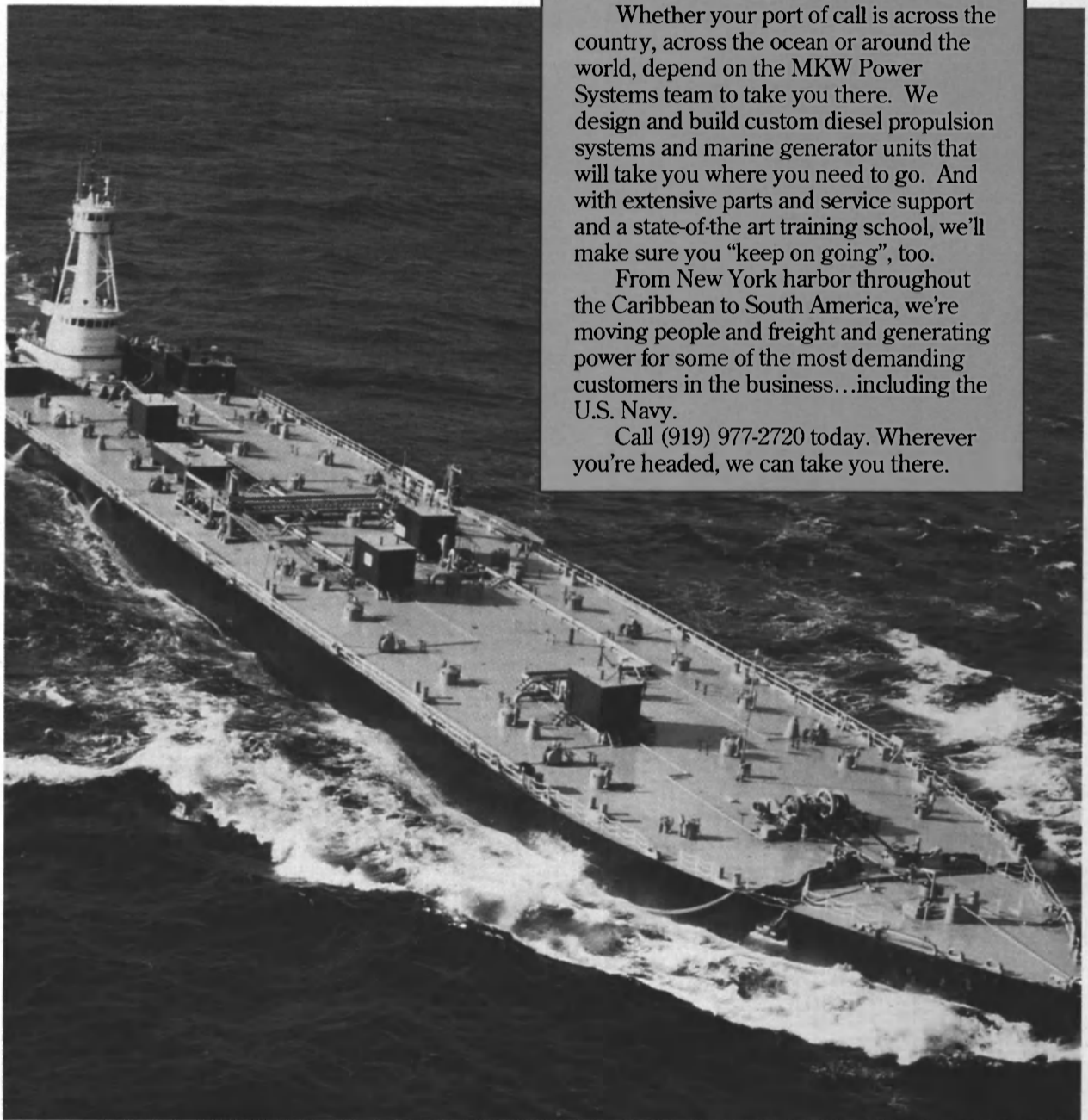
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Kvaerner Eureka Publishes 22-Page Color Brochure On Marine Equipment/Services

Kvaerner Eureka a.s., Lier, Norway, is offering a new 22-page, full-color brochure that details all hardware, design and services offered by the company to the marine industry.

Kvaerner, internationally re-

owned ship designers, builders, operators and equipment suppliers, has wide-ranging know-how and experience, with technology sharply focused on cost-effectiveness combined with safety for human life and the environment. The excellence of their LNG carrier design exemplifies this.

As a leading supplier of marine equipment, Kvaerner Eureka offers an unparalleled range of hardware and systems, discussed in eight dif-

ferent sections in the new brochure.

Included are chapters on cargo pumping systems; reliquefaction plants, inert gas plants; cargo hatch covers, cargo scooper; RO/RO equipment ramps—doors, lifts; engine room pumps, incinerators, ejectors; high-speed craft systems, emergency pumping firefighting systems, offshore pumping systems; and gas carriers.

Also included is Kvaerner Eureka's worldwide service network,

with addresses of headquarters, subsidiaries and branch offices, and a listing of service representatives.

Kvaerner Eureka's 22-page, four-color brochure is available free of charge. For a copy,

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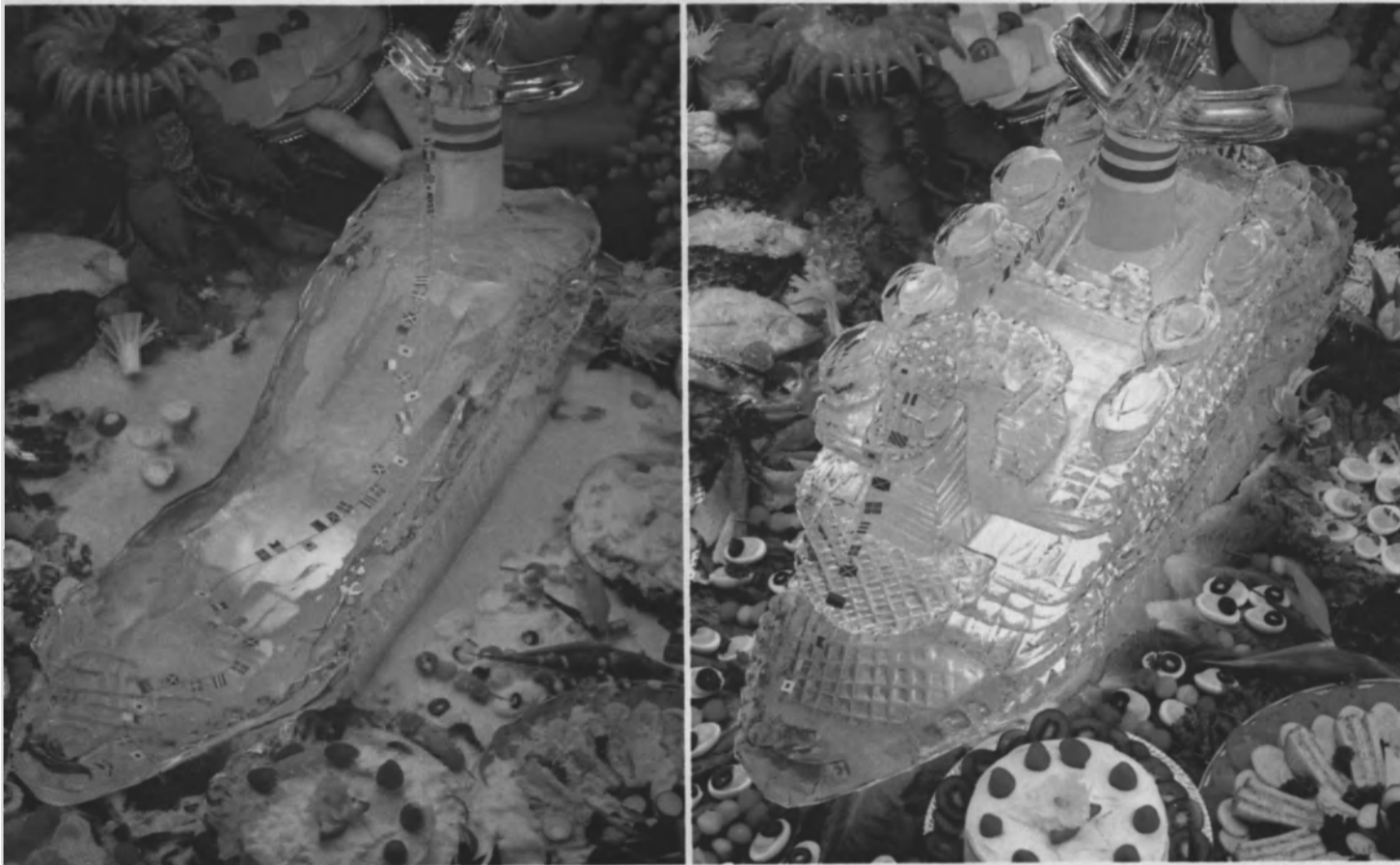
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Chinese Shipyards Choose Latest Technology From Lyngso-Valmet Marine

The automation supplier Lyngso-Valmet Marine has recently completed and shipped a complete set of ship automation equipment for a training vessel for the Shanghai Maritime University. The ship is being built at the Wenchong Shipyard near Guangzhou (Canton).

The automation equipment is installed into specially designed consoles made by the company and it includes a newly developed alarm system, UMS 2000, which supervises the machinery of the ship. The alarm system is modular and contains a thermostat function. The new system is based on Soren T. Lyngso's Stella Gamma Computer, which is also used extensively on land-based energy control systems. The automation package includes a bridge control system for remote control of a MAN B&W diesel engine and a maneuver recorder for recording events and commands given from the bridge to the engine room against time.

For further information and free literature from Lyngso-Valmet Marine,

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Maritime Reporter/Engineering News



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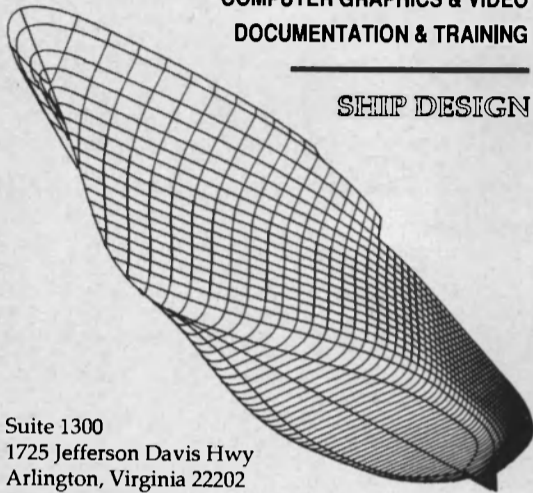
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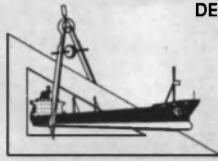
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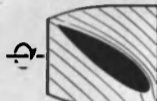
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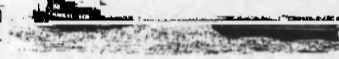
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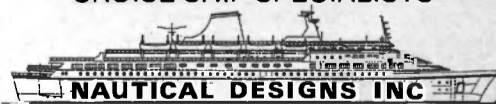
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Submit a current SF-171 or resume to: Commandant (G-CAS-5), Room 3418 USCGHQ, Washington D.C. 20593-0001. Attn: Ms. Shirley Rochon (202) 267-2331.

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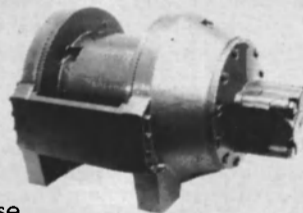
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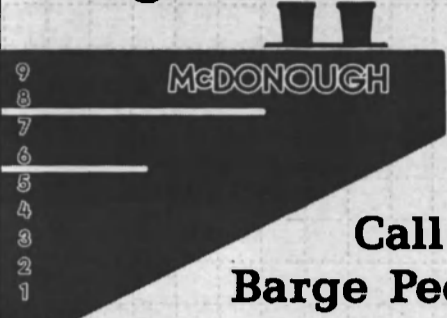
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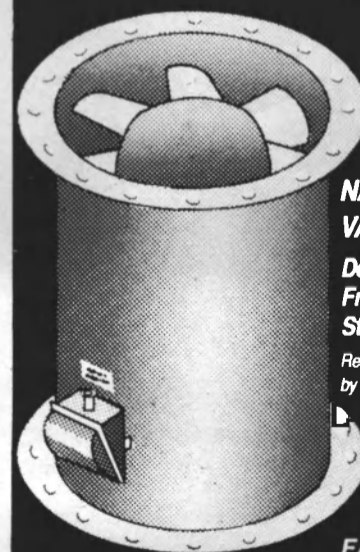
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