

MARITIME REPORTER

AND
ENGINEERING NEWS

JOHN J. O'MALLEY
33 ONTARIO ROAD
BELLEROSE, N. Y. 11426

HC



Built By Bethlehem Steel For Gulf Oil
The 265,000-DWT Tanker American Spirit
Will Transport Alaskan Oil On West Coast

(SEE PAGE 10)

AUGUST 1, 1977

HAMBURG



Hagenbeck Zoo. St. Pauli Reeperbahn. Gulf Veritas Cyloils.

Its history began with a moated castle between the Alster and the Elbe.
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Gulf Marine Lubricants. Unexcelled in quality, performance and overall economy. They are available all over the globe. For complete information, contact your local Gulf Trading and Transportation Company's marine consultant. In New York, ask for Jim Allen, (212) 397-1300. In London, Robin Lawrie, 01-283-1638.



Gulf Trading and Transportation Company
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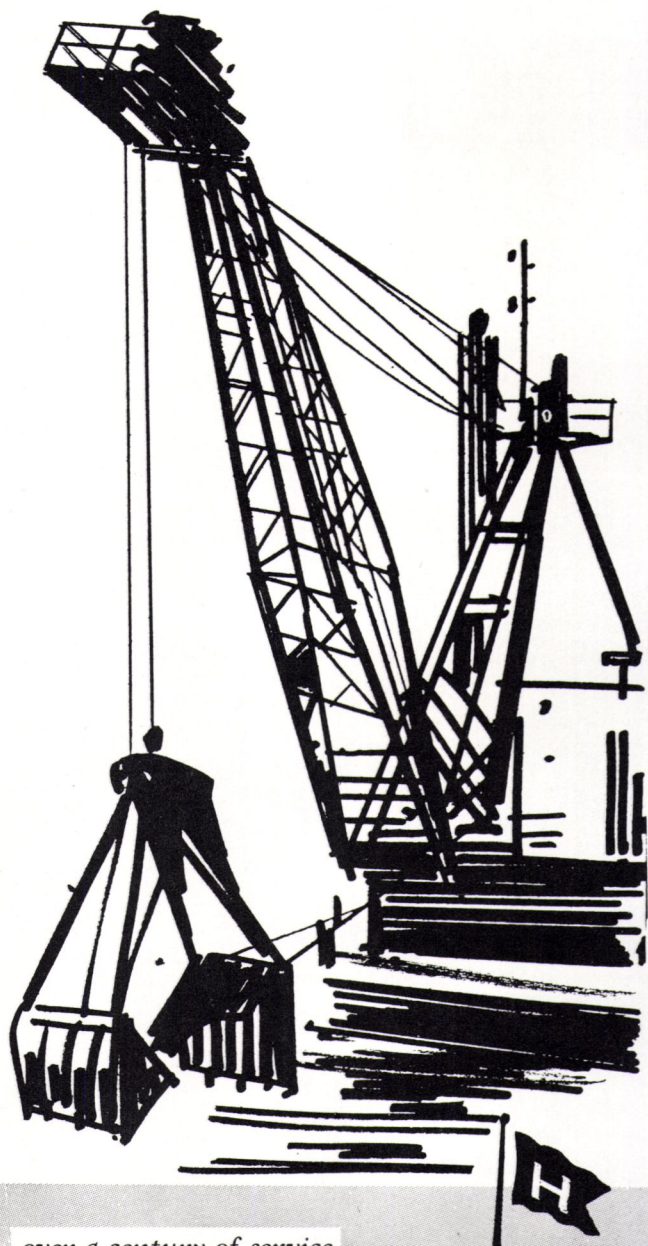
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LMVD Dredge Design Contract Awarded

Amalgamated Dredge Design, Inc., 842 Public Ledger Building, Independence Square, Philadelphia, Pa. 19106, has recently been awarded the hull design for the "Lower Mississippi Valley Development" Dredge. The "LMVD" Dredge is the largest of three hopper dredges presently being designed for the U.S. Corps of Engineers. The new dredges will incorporate the latest in dredge equipment and automation.

Amalgamated Dredge Design is an association of S & S Manufacturing and Supply Company of Santa Ana, Calif., and Seadrec, Ltd. of Paisley, Scotland, who have extensive experience in the field of dredge and marine design.

MarAd Approves Tanker Merger

The Maritime Administration has approved the merger and liquidation of Eagle Tankers, Inc. (Eagle) into an affiliate, United Tanker Corporation (UTC). The merger is part of a proposed corporate reorganization by U.T.G., Inc., 250 Park Avenue, New York, N.Y.

Eagle owns two 37,250-dwt tankers built with Title XI guarantees, the Eagle Leader and the Eagle Charger. Both ships are operated by another affiliate, United Maritime Corporation, in the Soviet Grain Program under operating-differential subsidies (ODS). The merger approval is conditional upon the companies receiving prior consent by the Maritime Subsidy Board to transfer the ODS contract from Eagle to UTC. Other conditions include, but are not limited to, UTC entering into a permanent Capital Construction Fund Agreement with MarAd.

Stack And Flag Chart Available

A new, updated, full-color identification chart of the stacks and flags of over 200 U.S., Canadian and overseas steamship lines is now available. Measuring 18 inches by 24 inches, it is suitable for framing and reference.

Single copies can be bought for \$3 from the Fourth Seacoast Publishing Co., Inc., 24145 Little Mack, St. Clair Shores, Mich. 48080.



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MARITIME REPORTER AND ENGINEERING NEWS

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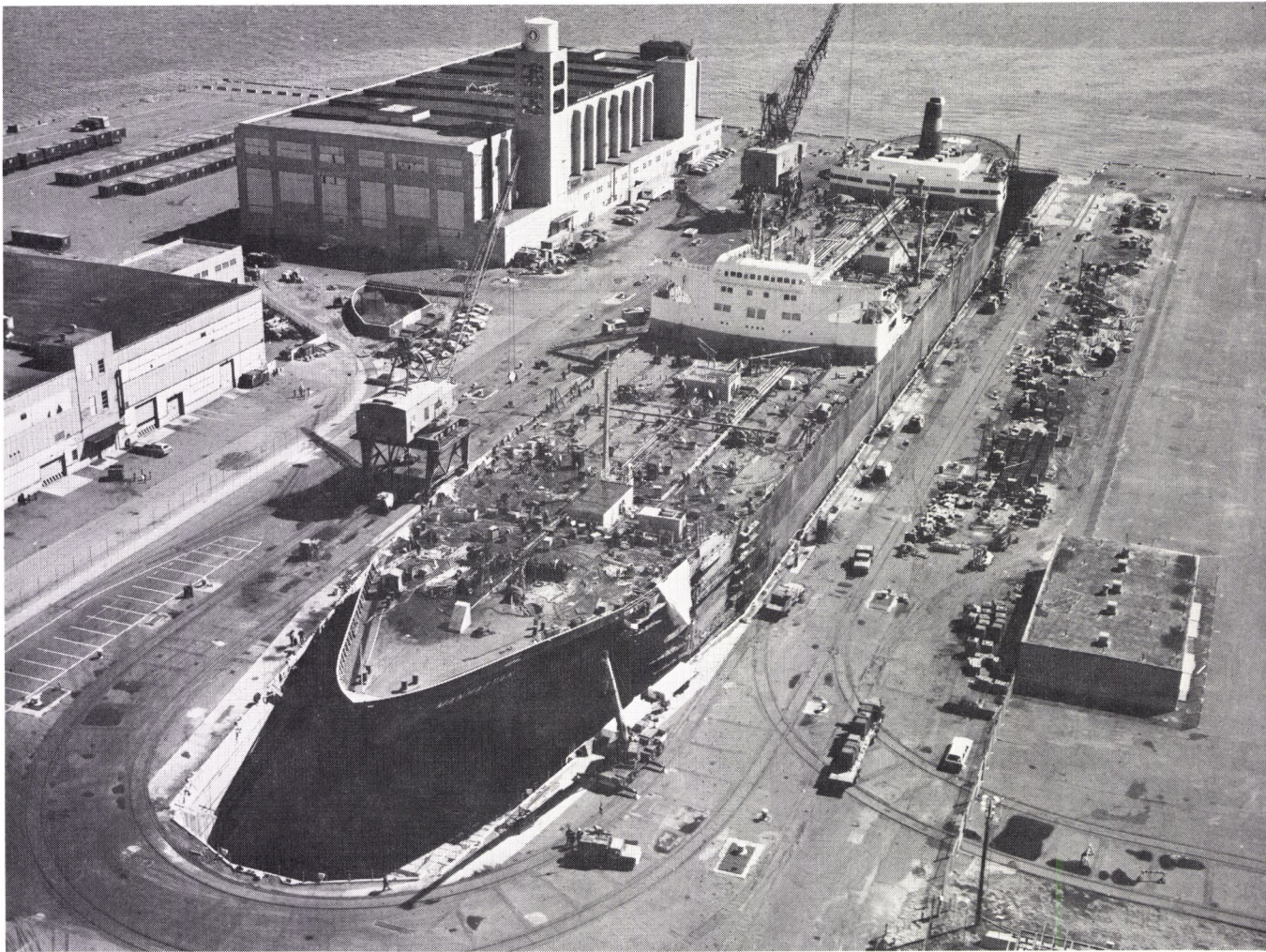
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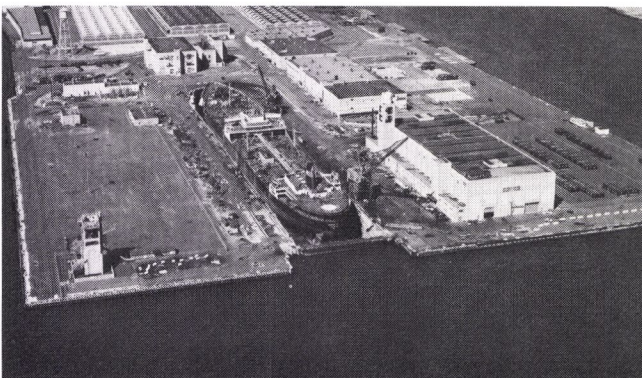
ST Manhattan can now drydock only a skip-and-a-jump from Broadway



Bethlehem's Hoboken Yard has brought back into operation the largest drydock in New York Harbor—and one of the largest in the United States. It's the former Navy graving dock at the Bayonne Military Ocean Terminal in Upper New York Bay, just four miles from Manhattan Island. And it's large enough to accommodate the big tanker, *ST Manhattan*, with room to spare: 1,082 x 138-ft wide, vs the vessel's 940 ft x 132-ft beam.

The 15-year-old, Bethlehem-Built *Manhattan*, still proud of her early years when she plied her routes as the largest-ever American-flag tanker,* was up for her annual drydocking and voyage repairs. We were glad to welcome her aboard our new facility for a quick turnaround.

**Her 106,000-dwt size was first eclipsed when Bethlehem's Sparrows Point Yard delivered the 120,000-dwt Arco Anchorage in 1973.*



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Building Ways at Sparrows Point, Md.; Beaumont, Texas; San Francisco, Calif.; and Singapore.

Falcon Cargo Ships, Inc. Plan To Construct Five Dry-Bulk Cargo Ships

Falcon Cargo Ships, Inc., 277 Park Avenue, New York, N.Y., has revised its January 23, 1976, application for operating-differential subsidy (ODS) and construction-differential subsidy (CDS), and has submitted a new application for a Title XI guarantee, all to aid in the construction and operation of dry-bulk cargo ships of approximately 37,000 dead-weight tons. The revisions increase the number of vessels from three to five.

The ships will have the following characteristics: 613-foot length, 93-foot width, 32-foot draft, 9,225 bhp, and service speed of 15 knots. Of modified IHI "Futuro-32" design, the ships will have six holds and cargo gear at all hatches. They will require crews of 26 men. Falcon estimates the cost of the ships to be \$30 million each, and seeks CDS of 50 percent.

Falcon proposes to charter the five vessels to two shipping companies located in Taiwan — Char Ching Marine Company, Ltd., and Good Harvest Marine Company — for the carriage of various dry-bulk cargoes between U.S. ports and the Far East. The principal countries will be Japan, Taiwan, the Philippines, Singapore, Thailand, India, and Pakistan.

Marco Receives Orders For Four Crab Boats

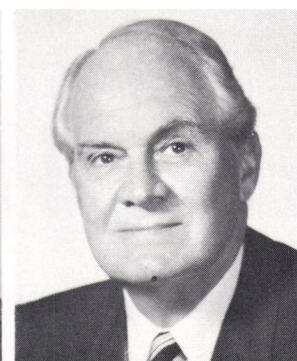
Marine Construction and Design Co. (MARCO), 2300 West Commodore Way, Seattle, Wash. 98199, has announced that orders have been received for four new crab boats. The vessels, of which two are 108 feet in length and two 97 feet, are similar in design to 26 other all-steel crabbers and crabber/traulers constructed by Marco since 1968.

These four recent orders bring to six the total number of crabbers ordered from Marco this year.

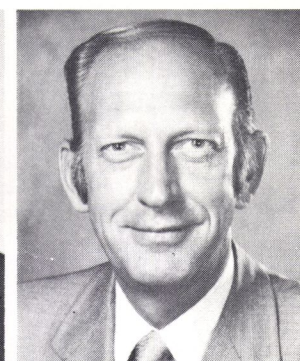
Clarence French Named President Of NASSCO



Clarence L. French



Stephen A. Girard



Roland A. Kjelland

National Steel and Shipbuilding Company, San Diego, Calif., has announced that **Clarence L. (Larry) French** has been named president and chief operating officer. **Stephen A. Girard**, headquartered at Kaiser Center in Oakland, Calif., was named the shipbuilder's chief executive officer in addition to his current post as chairman.

Roland A. Kjelland, former NASSCO president and chief executive officer, has resigned to assume broadened responsibilities with Kaiser Steel Corporation as its executive vice president. He continues as a member of the NASSCO board of directors.

Mr. French has served as NASSCO's executive vice president and general manager since May 1976 and as executive vice

president, operations, since January 1976. He joined the company in 1967, and has served as director of engineering and vice president of engineering between December 1974 and January 1976.

Mr. French earned B.S. degrees in mechanical engineering and naval science at Tufts University. Before joining NASSCO, he served as a supervising engineer with a multinational engineering firm, and in engineering capacities with several of the nation's largest steelmakers.

Mr. French is a member of The Society of Naval Architects and Marine Engineers, the Association of Iron and Steel Engineers, The American Society of Naval Engineers, and the National Society of Professional Engineers. He is also a state-registered professional engineer.

Storm Marine Drilling Applies For Title XI

Storm Marine Drilling Company (Storm), Corpus Christi, Texas, has applied for a Title XI guarantee to aid in financing the construction of a jackup drilling platform, the J Storm VI.

Estimated actual cost of the vessel is \$16.2 million. It is a 275-foot bottom-to-bottom mobile platform under construction at Bethlehem Steel Corporation's Beaumont, Texas, shipyard.

Marine Drilling Company, parent of Storm, will operate the platform in the Gulf of Mexico. Marine Drilling currently operates five other jackup drilling platforms.

Delaware Valley Council Elects Robert L. Pettegrew

Robert L. Pettegrew, executive director of the South Jersey Port Corporation, Broadway and Morgan Boulevard, Camden, N.J. 08104, has been elected to a two-year term on the board of the Delaware Valley Council, an organization formed in 1971 to promote the economy of the region. Since Mr. Pettegrew became director of the South Jersey operation at Camden, its cargo volume has almost doubled, and now exceeds 1.1-million tons a year.

Moore-McCormack Appoints Kevin Burke

Kevin J. Burke has been appointed traffic-operations manager of Moore-McCormack, Inc., the company has announced. He succeeds **Robert L. Mickens**, who has retired.

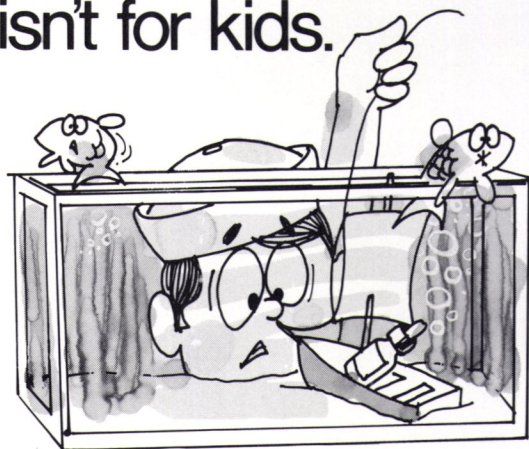
Mr. Burke joined the company in 1955 and has held various traffic and terminal positions, most recently as an administrative assistant to the assistant vice president-operations.

Heavy Duty Hoists Catalog Available From Skagit Corporation

All six models of heavy duty construction hoists for marine applications are described in detail in a new color catalog from the Skagit Corporation. These rugged hoists are now used throughout the commercial marine/offshore market for all types of heavy lift, construction and mooring operations. Each one of the six models is illustrated, and complete specifications are provided along with pictures of the various marine applications for each unit. Skagit will also custom design and engineer a unit to suit your specific requirements.

For your free copy of the new hoists brochure, write **Fred W. Holder**, Skagit Corporation, P.O. Box 151, Sedro-Woolley, Wash. 98284.

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Waterman Plans To Build Either An \$80-Million Or An \$87-Million Vessel

Waterman Steamship Corporation, 120 Wall Street, New York, N.Y., has applied for both construction-differential subsidy (CDS) and Title XI guarantees to aid in financing the construction of either a roll-on/roll-off (ro/ro) vessel or a lighter-aboard-ship (LASH) vessel to replace two 1945-built freighters operating on its Trade Route 18 service.

The proposed ro/ro vessel would be 684 feet long, with a deadweight capacity of 19,534 tons and a speed of 23 knots. Estimated actual cost, for which Waterman is seeking 50 percent CDS, is \$87.8 million. The vessel would contain four decks and four cargo holds: one for breakbulk cargo and the other three for roll-on/off cargo. Containers would be stowed on the "A" deck. Although the application does not specify the container/trailer capacity, it does indicate that 900 containers, 500 chassis, and 300 trailers would be required to support the ship. It would be used to carry containers, wheeled cargo, and heavy-lift cargo from U.S. Atlantic and Gulf ports to Southwest Asia from Suez to Burma, and Africa in the Red Sea and the Gulf of Aden.

The proposed LASH vessel would be 893 feet long, with a deadweight capacity of 38,500 tons and a speed of 22 knots. Estimated actual cost is \$80.9 million; Waterman seeks 50 percent CDS. It would be used for the same trade as the ro/ro vessel. The LASH vessel would have a capacity of 89 barges—36 on deck and 53 in seven holds. Its lighter crane capacity would be 550 short tons.

Waterman is required by the replacement obligation of its operating-differential subsidy (ODS) contract for T.R. 18 to contract for the construction of one LASH or one ro/ro vessel by November 26, 1977. Presently, Waterman operates three LASH vessels, two Mariners, and two reconverted C4 freighters on T.R. 18. It also operates vessels, without ODS, in services between Gulf and Atlantic ports and the Far East, Scandinavia, the Baltic, and the USSR. ODS applications have been filed for these services.

Burmeister & Wain Sign With AMT-Miami

Burmeister & Wain Engineering Co. Ltd. of Copenhagen, Denmark, has announced the signing of an agreement with AMT-Miami, Incorporated, which gives AMT authorization as repair facility and spare parts provider for B&W diesel engines in South Carolina, Georgia, Florida, Bahamas and the Caribbean, excluding Jacksonville Shipyards and Curacao Drydock Co., Inc.

Boston VLCC Tankers, Inc. Submits Application To Enter Alaska Trade

The Maritime Administration has received an application from Boston VLCC Tankers, Inc. VI, Wilmington, Del., to enter the 265,000-dwt tanker Maryland in the Alaskan oil trade. The ship would be operated by Atlantic

Richfield Company, which entered into a time charter with the owners on April 17, 1977.

On June 24, 1977, MarAd announced new regulations that prescribe procedures under which tankers of 100,000 dwt or more, built under construction-differential subsidy (CDS), could be employed temporarily in the Alaskan oil trade. The regulations limit the use of such vessels to the

trade between Alaska and the Panama Canal. Participation is also limited to six months in any one year, and CDS funds must be repaid on a prorated basis during such periods.

The Maryland was built under CDS and delivered August 18, 1976, from Bethlehem Steel Corporation's Sparrows Point, Md., shipyard. Total cost of the ship was \$71.2 million.

This advertisement is neither an offer to sell nor a solicitation of an offer to buy any of these securities. The offering is made only by the Offering Circular.

June, 1977

\$36,900,000

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\$740,000 6.750% Serial Bonds Due April 15, 1981
\$740,000 6.800% Serial Bonds Due October 15, 1981
\$740,000 6.900% Serial Bonds Due April 15, 1982
\$740,000 6.900% Serial Bonds Due October 15, 1982
\$740,000 7.150% Serial Bonds Due April 15, 1983

\$740,000 7.150% Serial Bonds Due October 15, 1983
\$740,000 7.200% Serial Bonds Due April 15, 1984
\$740,000 7.200% Serial Bonds Due October 15, 1984
\$740,000 7.300% Serial Bonds Due April 15, 1985
\$740,000 7.300% Serial Bonds Due October 15, 1985
\$740,000 7.350% Serial Bonds Due April 15, 1986
\$740,000 7.375% Serial Bonds Due October 15, 1986
\$740,000 7.400% Serial Bonds Due April 15, 1987
\$740,000 7.450% Serial Bonds Due October 15, 1987
\$740,000 7.600% Serial Bonds Due April 15, 1988
\$740,000 7.600% Serial Bonds Due October 15, 1988
\$740,000 7.625% Serial Bonds Due April 15, 1989

and

\$19,140,000 7.90% Sinking Fund Bonds Due April 15, 2002

Payment of principal and interest will be guaranteed by the United States of America under Title XI of the Merchant Marine Act, 1936, as amended, which expressly provides that: "The full faith and credit of the United States is pledged to the payment of all guarantees made under this title with respect to both principal and interest, including interest, as may be provided for in the guarantee, accruing between the date of default under a guaranteed obligation and the payment in full of the guarantee."

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Santa Fe Completes Phase One Of Arabian \$161-Million Project

Santa Fe International Corp., Orange, Calif., has announced the early completion of Phase 1 in its \$161,000,000 Ras Al Mish'Ab port project on the east coast of Saudi Arabia.

The first ship berthed at the new port facilities June 25, less

than 11 months after the award of the turnkey design-construction contract to Santa Fe Overseas, Inc., a subsidiary of Santa Fe International Corp. The contract was executed by the U.S. Army Corps of Engineers Middle East Division, acting as agent for the Saudi Arabian Government's Ministry of Defense and Aviation.

The Liberian-flag M/V Cynthia, first vessel to use the new port,

unloaded a cement-handling system, elevator equipment and other materials to be used in completion of two additional berths and onshore cargo-handling facilities.

The present schedule indicates the entire job should be finished before the December 2 contract deadline.

Following its completion, the port of Ras Al Mish'Ab will handle cement shipments and other incoming cargo required in the

construction of the King Khalid Military City and other inland projects to be built by the Saudi Arabian Government as part of its long-range national development program.

Ras Al Mish'Ab's four berths occupy a man-made sea island located a mile offshore and connected to land by a two-lane road and causeway. Principal onshore facilities include more than 40 port buildings, housing facilities for more than 200 persons and related road and utility systems.

Santa Fe Engineering Services Co., another Santa Fe International subsidiary, was responsible for the design of the marine structures. Onshore facilities were designed by Lockwood Greene International, Inc. in Atlanta, Ga., and Frank L. Hope & Associates in San Diego, Calif.

Principal construction subcontractors include Abdullah H. Shuwayer of Saudi Arabia, AWAL Contracting & Trading Co. of Bahrain, and Al Hamra Kuwait Co. of Kuwait.

Kockums' LNG carriers; the seven-year shuttle

See us at
LNG 5
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Kockums delivered two of the world's largest LNG tankers as long ago as 1969. LNGC Polar Alaska and LNGC Arctic Tokyo have cargo capacities of 71 500 m³ each. We used the membrane technique developed by Gaz Transport.

Ever since they were delivered, both vessels have been working regular schedules between Alaska and Yokohama, where the gas is converted to power, light and heat. We've been an interested observer, day after day. And what we've seen has made us increasingly proud of our work.

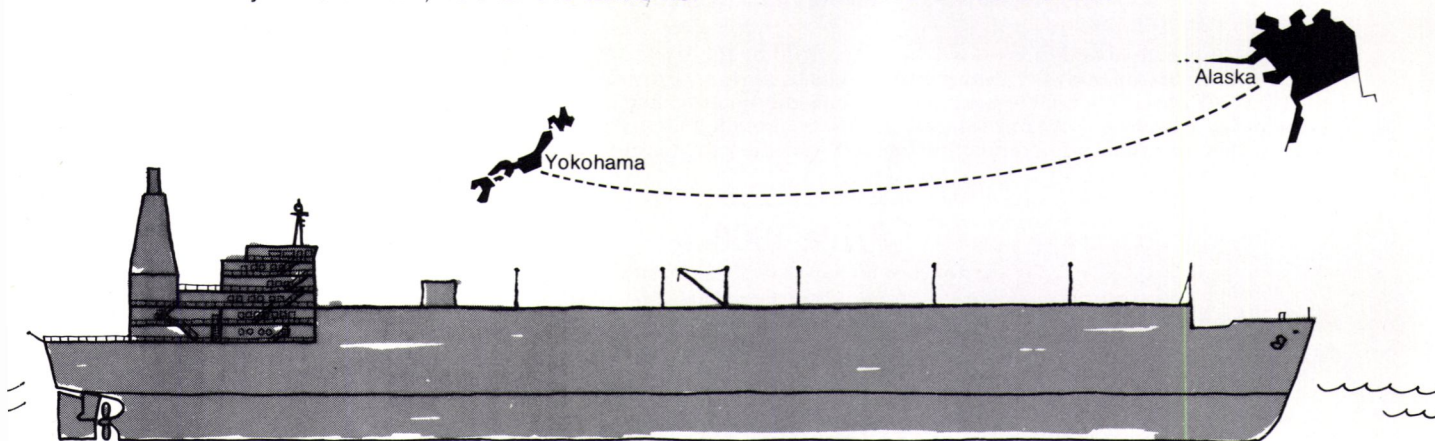
Because after seven years' continuous operation and 6 1/2 million tons of LNG - cooled down to minus 162 C° - the original performance estimates have been surpassed by a generous margin. And our technical evaluations have been justified in full; neither the tanks nor

We run an intensive research and development programme for gas tankers. With the help of a laboratory containing the last word in modern equipment, staffed by more than forty specialists. Among other things, we've developed the membrane technique even further. We're still convinced of its superiority.

But we're not blind stubborn. If you think you've got a better tank system, we'll build you a gas carrier accordingly. On condition that the technical qualities of the system meet our specifications.

So we're in a good position. Equipped with a winning combination of knowledge and experience; a combination that's highly profitable for someone who needs large LNG carriers. Of any size - 133 000 m³, 167 000 m³, or even bigger.

Kockums will build them.



the hull have shown the slightest sign of fatigue, and corrosion has been nil. Which means that we sleep soundly at night.

But we don't sleep during the day. We're anxious to maintain our position as one of the most technically advanced shipyards in the world.

KOCKUMS
Kockums Shipyard

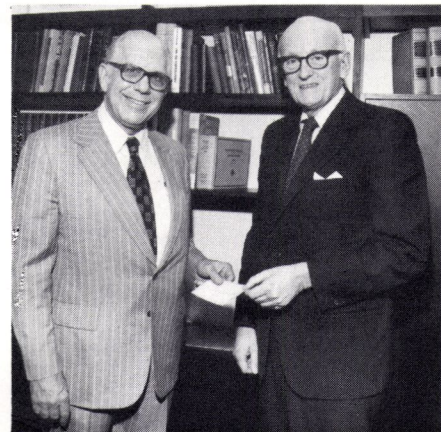
Kockums Shipyard, S-201 10 Malmö 1, Sweden

Montauk Oil To Build Oceangoing Tank Barge

Montauk Oil Transportation Corp., 1040 East 49th Street, Bronx, N.Y., has applied for a Title XI guarantee to aid in financing the construction of an 18,419-deadweight-ton oceangoing tank barge.

The vessel will be a heated-tank barge 425 feet long, 74 feet wide, with a draft of 27 feet. Total estimated construction cost is approximately \$4.5 million. Although the barge will not be self-propelled, it will have accommodations for four crew members.

Montauk, a subsidiary of Cibro Petroleum/Brooklyn, Inc., Brooklyn, N.Y., will operate the barge to carry petroleum products between the Gulf of Mexico and the East Coast. It operates two other tank barges similarly.



FOR WEBB CHEMISTRY LAB
—G.C. Halstead (right), president of Alcoa Steamship Company, is pictured as he presented a check from the Alcoa Foundation to Rear Adm. Charles N. Payne, USN (ret.), president of the Webb Institute of Naval Architecture. The grant from the Foundation is earmarked for use in modernization of the Chemistry Laboratory at Webb.

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Specifically, solid-wheel turbines can be started up cold—with load—in a few seconds. No warm-up required.

The wheel is a single steel forg-

ing in which semicircular buckets are milled—there are no separate parts to become loose or work out. Heavy rims and large axial clearances at both sides of the wheel prevent damage from reverse thrust.

Mechanical speed governor is housed in a heavy, rugged, cast housing . . . overspeed governor is a simple, positive, completely sparkless device. For shipboard service Terry solid-wheel turbines are available in sizes to 2,000 h.p.

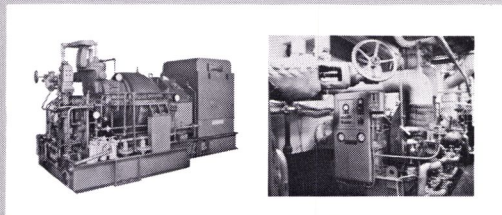
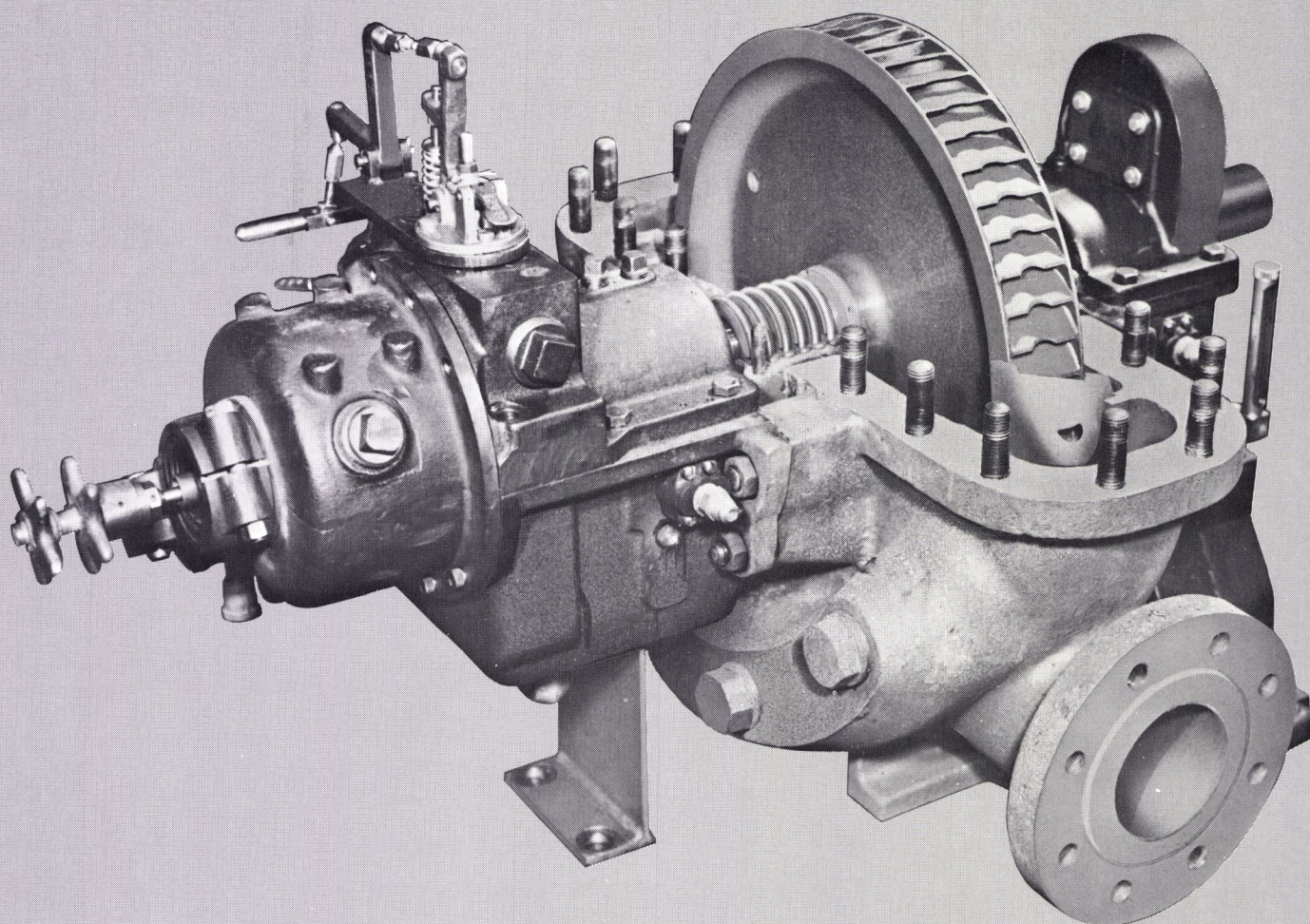
So, whether you're designing a new ship or going through overhaul, call in Terry early in the planning of your next project. Terry can

put more reliability aboard any ship, large or small.

Oh, if auxiliary turbines aren't what you need, look at Terry's turbine generators or cargo pump drives (below). Terry Corporation, Lamberton Road, Windsor, CT. 06095 (203) 688-6211.



**TERRY
CORPORATION**



\$81-Million Tanker American Spirit To Transport Oil From Alaskan Pipeline To Panama Canal



The American Spirit, first of two 265,000-deadweight-ton class tankers built for Gulf Oil Corporation at Bethlehem Steel Corporation's Sparrows Point shipyard, sails down Chesapeake Bay on her trials.

The American Spirit, a supertanker built by Bethlehem Steel Corporation for Gulf Oil Corporation at a base contract cost of approximately \$81.4 million, was christened recently at the steel company's Sparrows Point (Md.) Yard. Mrs. Jerry McAfee, wife of Gulf's chairman of the board, officiated at the noon ceremony with the traditional bottle of champagne.

The American Spirit is the first of two supertankers being built by Bethlehem Steel for Gulf Oil. Her sistership, the American Independence, is expected to be delivered in late summer or early fall of 1977.

The supertanker will leave immediately for the U.S. West Coast to go into service between Port Valdez, Alaska, and offshore of the Panama Canal west coast. She will transport crude oil from the Alaskan pipeline for transfer to



Mrs. Jerry McAfee, wife of the chairman of the board of Gulf Oil Corporation, pulls a wire that smashes a bottle of champagne to christen the American Spirit, as her husband smilingly lends moral support.

smaller vessels at the Canal for shipment to Gulf Coast ports.

The 1,100-foot vessel, carrying 2,014,000 barrels of oil, representing 98 percent capacity, will travel at a speed of approximately 15 knots. She is one of Bethlehem's 265,000-deadweight-ton class, the largest merchant vessels ever constructed in the United States.

The keel for the American Spirit was laid July 17, 1975. The supertanker was constructed according to requirements of the American Bureau of Shipping, U.S. Coast Guard, U.S. Public Health Service, and the Federal Communications Commission.

Principal characteristics of the vessel include one complete deck with raised fore-castle head, cylindrical bow, horn-type rudder, straight transom stern and an after-superstructure.

The American Spirit is equipped with the latest navigational, safety, communications and antipollution aids. She was designed to meet the requirements of the October 1971 resolution of the Inter-Governmental Maritime Consultative Organization (IMCO) regarding maximum size of cargo tanks.

Clean discharge water will be assured through use of a slop tank system utilizing two of the cargo tanks and an oil/water separator. Instrumentation to detect oil in the ballast water being pumped overboard will give an audible and visual alarm, with automatic immediate shutdown capability.

Protection in the cargo tanks will be furnished by an inert gas system which will provide a constant nonexplosive atmosphere within them.

A centralized cargo control system provides for remote tank level

indication and remote control of all hydraulically operated tank and pump room valves, as well as remote control of three 24,000-gallons-per-minute cargo oil pumps and two 1,200-gallons-per-minute stripping pumps. A cargo tank high-level alarm and automatic shutdown system is provided to protect against inadvertent overflow while loading.

Protection against water pollution when the vessel is in coastal waters or in port will be provided by a sewage treatment plant and a large sewage holding tank.

The breadth of the vessel is 178 feet. Its depth is 86 feet. The summer deadweight is 262,376 long tons on a draft of 67 feet 1-13/16 inches. Loaded displacement is 305,317 tons.

Navigation equipment includes an echo depth sounding and recording system, a 10-CM radar, a 3.2-CM radar and a collision avoidance system capable of operating with either radar. A radio direction finder, a Loran receiver and a satellite navigation receiver are also furnished, as well as the latest computer type Omega system.

Communication equipment consisting of the main and emergency telegraph console is installed in the ship's radio room. The vessel also has a VHF radiotelephone and a single sideband radio transceiver system with operating capabilities from the pilothouse.

A VHF transceiver system for communications with the terminal during cargo-handling operations is installed in the cargo control room.

The vessel's clean ballast water capacity in four tanks is more than 32,000 tons; and the supertanker's 11,950-ton fuel capacity provides a cruising range of 20,000 miles.

In addition to the second Gulf ship under construction, the Sparrows Point Yard is also building a U.S. Navy drydock and two 27-, 340,000-deadweight-ton container-ships.

After the christening, Donald T. Burkhardt, Sparrows Point Yard general manager, was the host at a luncheon in honor of the sponsor, Mrs. McAfee.

Kimman Of Rotterdam Names Linnenbank Int'l

Kimman Mooring Systems, Rotterdam, the Netherlands, has announced the appointment of Linnenbank International, Inc., 2801 South Post Oak Road, Suite 190, Houston, Texas 77056, as their U.S. representative in the Gulf Coast area for their quick release hook and other products.

Kimman's quick release hooks can be manufactured to operate manually or hydraulically and can be mounted with electric capstans. Other products include capstans, gangway towers, bollards and various mooring hardware.

Pfitzco International Naval Architectural Firm Formed In Tampa

The formation of Pfitzco International, a firm of naval architects and marine suppliers with offices at 2411 West Cypress Street, Tampa, Fla. 33609, has been announced by Fritz Schmid, president.

The new firm will be engaged in the sale of all types of marine equipment and supplies, whether new or used; complete naval architecture services from the design phase to the final construction; the procurement of all types of local, state and Federal permits for any type of marine activity, and turnkey construction management of any marine-related project, including vessel fabrication and marina developments.

Alexander Names Rex Gray Manager Mobile Ship Chandlery



Rex Gray

William B. Alexander, president of Alexander Industries, Inc., headquartered in New Orleans, La., and with facilities in Houston, Texas, Houma, La., and New York City, announced the appointment of Rex Gray as general manager of Alexander's recent acquisition, the Mobile Ship Chandlery, Inc. in Mobile, Ala. Mobile Ship, the area's oldest chandlery, has been serving the Gulf South with pride since 1875.

Mr. Gray has a long and varied background in the marine industry. He comes to Mobile Ship after having successfully operated his own manufacturers agency for many years. A graduate of Auburn University, he is a native of the Mobile area and an active member of The U.S. Propeller Club, Port of Mobile, and The Society of Naval Architects and Marine Engineers.

Brochure Describes Union Mechling Waterways Fleet

Union Mechling Corp., a subsidiary of Dravo Corp., has published a new 20-page brochure illustrating the various barges and towboats in the company's inland waterways fleet and its operating rights.

Copies are available from Union Mechling Corp., One Oliver Plaza, Pittsburgh, Pa. 15222.



Tug Heide Moran

Moran's new Heide-class tugs put power where you need it.

Whether she's behind the biggest barge, or towing the long-distance haul, "Heide Moran" has enough power, size and technology to handle your toughest jobs. This new breed of Moran tug is 126 feet long, powered by 4,730hp turbo-charged engines,

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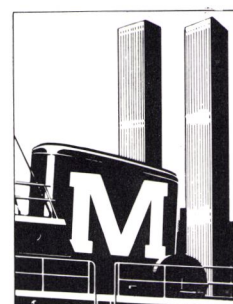
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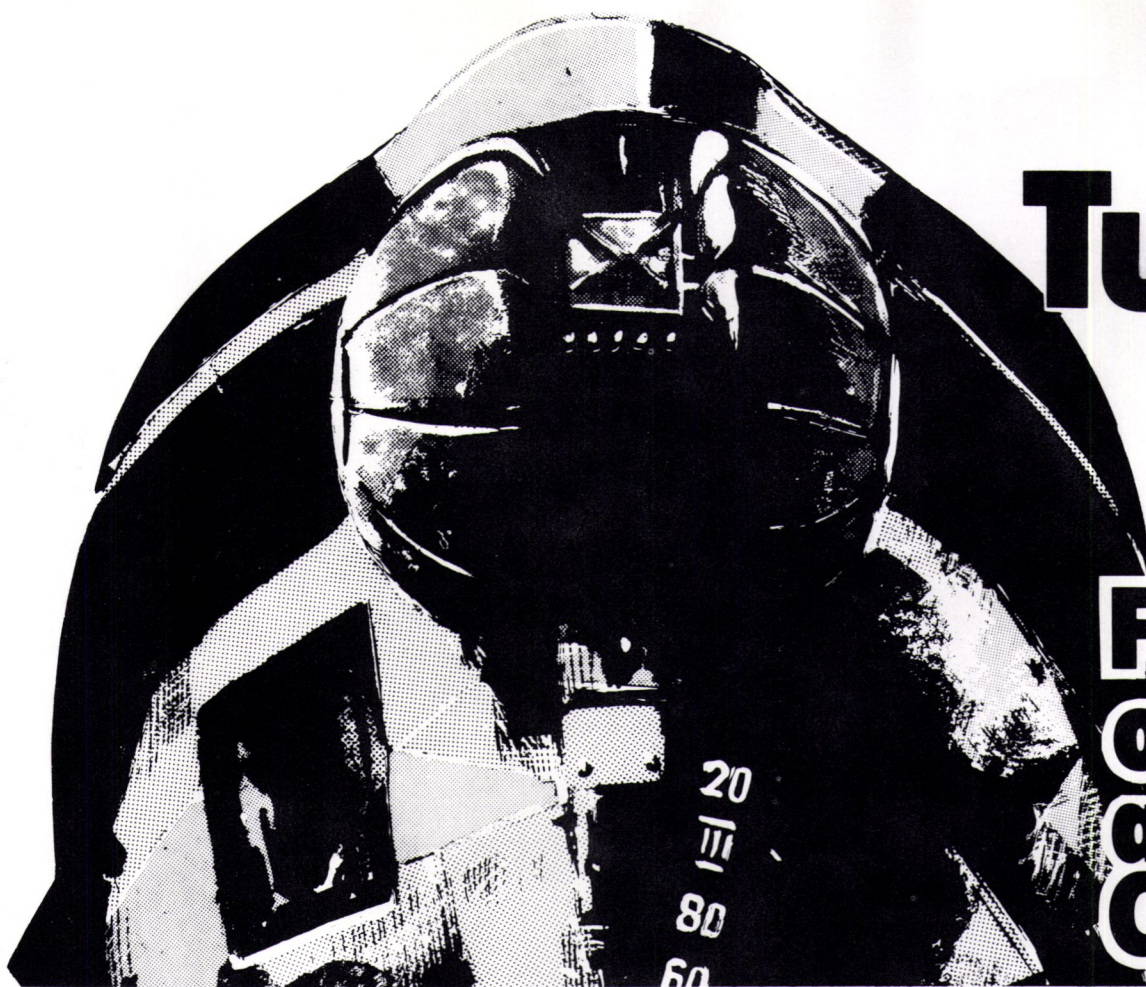
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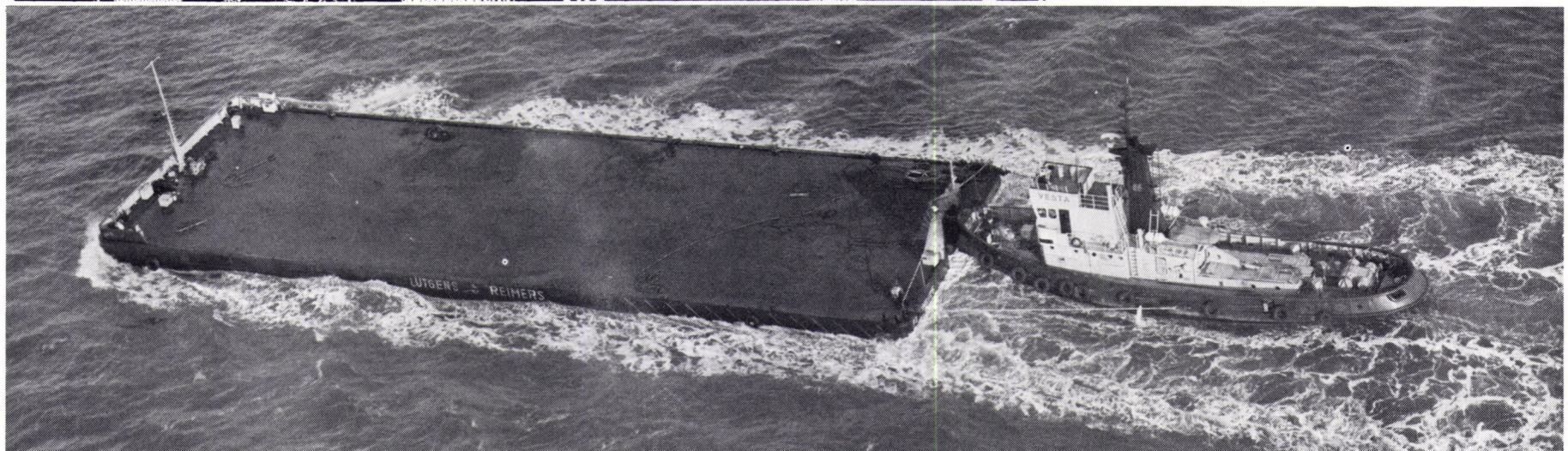
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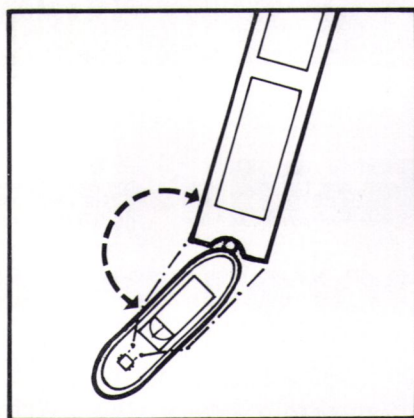
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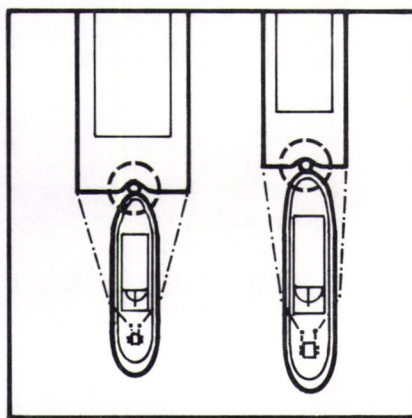
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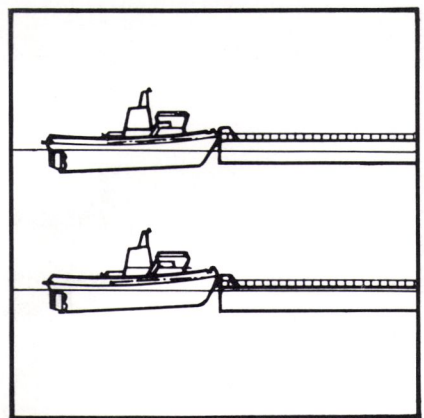
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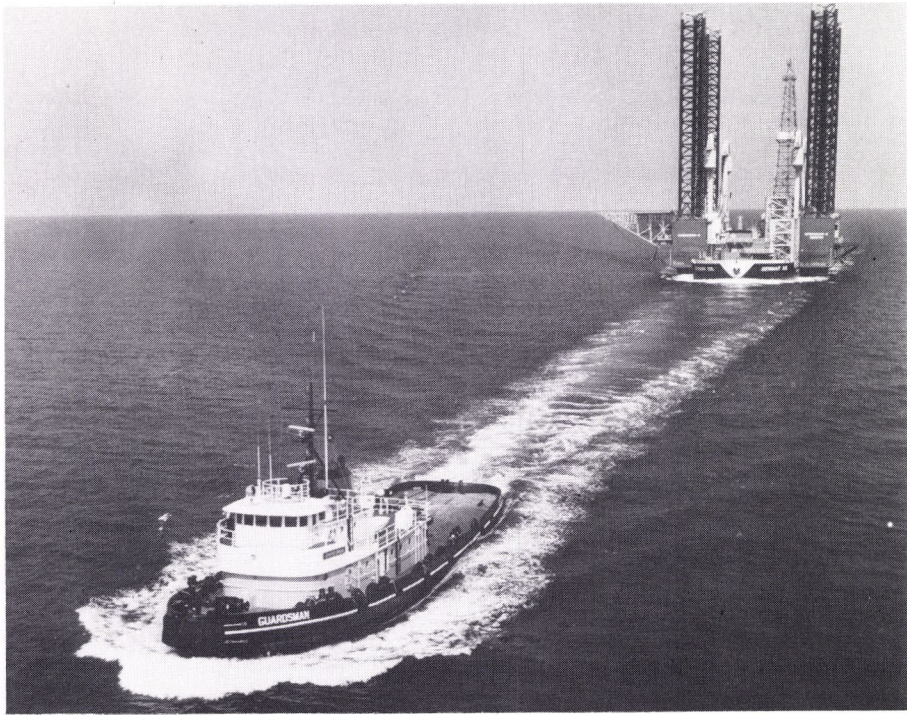
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11,000-Ton Drilling Rig Towed 15,000 Miles



The 11,000-ton offshore drilling rig Interocean II, owned by Interocean Drilling, aboard a 400 by 100-foot Global Transport Organisation barge being towed by the 9,000-hp GTO tug Guardsman.

A 280 by 150-foot offshore drilling rig arrived in the Gulf of Mexico off the coast of Coatzacoalcas, Mexico, June 27, completing a 15,000-mile trip from Nihama, Japan, in some 77 days, according to **G.A. Watkins**, acting managing director of Global Transport Organisation, San Francisco, Calif., the firm responsible for transporting the rig.

The jackup rig is Interocean II, owned by a subsidiary of The Offshore Company and operated by Interocean Drilling, S.A., a joint venture owned by subsidiaries of The Offshore Company and a member of the Royal Dutch/Shell Group. The 11,500-ton rig, recently constructed by Sumitomo Heavy Industries in Toyo, Japan, has a drilling capacity of 20,000 feet in 300-foot water depths.

The jackup rig completed the long ocean journey loaded aboard a GTO 400 by 100-foot ocean-going barge towed by a 9,000-hp GTO tug which averaged 10 knots since the departure from Japan. The trip is the longest of its kind ever attempted by GTO. This type of transportation has reduced the

voyage time required by conventional wet tow methods.

This particular project required the successful application of a new loading technique. In similar moves, GTO has loaded offshore rigs by submerging a barge, floating the rig over it and then raising the barge with the drill rig positioned securely on deck. No submersion was necessary for this job. Loading was accomplished by positioning the barge between the legs of the rig and then jacking the rig down onto the barge. A similar technique is being used to discharge the rig at its final destination.

Interocean II was loaded aboard the newly constructed barge Genmar 105. The 400 by 100-foot barge features a totally automated submerging system and is equipped with hydrofoil skegs for improved tracking and less drag.

Global Transport Organisation is an international marine transportation group uniting three prominent marine carriers. Member companies are Crowley Maritime Corporation, Federal Pacific Limited and Genstar Overseas Limited.

New Anchoring Booklet Published By Danforth

Danforth, Division of The Eastern Company, Portland, Maine, has just released a new revised eighth edition of the company's popular booklet entitled "Anchors and Anchoring." Written by **R.D. Ogg**, managing director of Danforth and noted authority on anchoring, the previous editions of this informative piece have enjoyed widespread distribution. Over 1,000,000 copies have been circulated, many through boating training organizations who utilize its contents as part of their curriculum.

The new edition treats the his-

tory of anchors dating back to the earliest times, how an anchor functions, holding power of various types of anchors, rode and recommended sizes, anchoring and mooring techniques and methods for calculating anchor loads.

"Anchors and Anchoring" is available from Danforth free upon request. Boating organizations and dealers wishing to distribute this booklet to their customers may order reasonable quantities without charge. Quantities are also available to builders who wish to include it in their owner's packets. Write **Robert D. Ogg**, Danforth, 500 Riverside Industrial Parkway, Portland, Maine 04103.

\$4,446,012 Award To Peterson Builders

Peterson Builders, Inc., Sturgeon Bay, Wis., is receiving a \$4,446,012 formally advertised firm fixed price contract for patrol craft (YP). The Naval Sea Systems Command is the contracting activity. (N00024-77-C-2068)

Young Brothers Name John Kelly Manager

John Kelly has been named manager of Young Brothers, Ltd., Honolulu, Hawaii, it was announced by **James V. Sterling Jr.**, vice president of Dillingham Maritime-Pacific Division.

Mr. Kelly first joined Dillingham Maritime-Pacific Division (formerly Dilmar) in 1970 as accounting coordinator. His most recent position was manager, employee relations. Prior to joining Dillingham Maritime, **Mr. Kelly** was employed by IBM and by Control Data Corporation.

A native of New York, **Mr. Kelly** attended Villanova University, where he received his B.A. degree. He later attended Pepperdine University, graduating in 1974 with an MBA degree in business administration.

The Dillingham Maritime-Pacific Division companies include Young Brothers, Ltd., Dillingham Tug & Barge Co., Ltd., Dillingham Shipyard and Dillingham Corporation of Guam.

Savannah Machine And Shipyard Appoints Purchasing Manager



Eric C. Johnson

The appointment of **Eric C. Johnson** as purchasing manager of Savannah Machine and Shipyard Company, Savannah, Ga., was announced by **Robert Sherman**, president. **Mr. Johnson** has been purchasing agent for Porter-Huggins, Inc. Prior to joining that company, he had worked at both Porter Trucking Company and the City of Savannah in the purchasing area.

He is a member of the Savannah Chapter of the Purchasing Management Association, and has served as the Association president. He is active in community affairs, and was chairman of the first "Feed-a-Kid" program. Currently, he is treasurer of the Oriental Band, a unit of the Alee Temple Shrine.

Mr. Johnson is a native of Lynchburg, Va., and has made his home in Savannah since 1953.



THE FIRST FLOOD — Another historical moment passed in the construction of ASRY (Arab Shipbuilding & Repair Yard Company) when His Excellency **Majid Al-Jishi**, ASRY's chairman and Bahrain's Minister of Works, Power and Water, pressed the button to start the first flooding of ASRY's 1,230-foot-long by 246-foot-wide drydock. ASRY's 500,000-dwt drydock is now nearly completed, and the first ship is scheduled to dock in early October this year. On the day of the flooding, the dock was filled with the 2,000 work force of Hyundai who have built the dock, shops and all ancillary buildings in a record of one and a half years. Two giant hollow concrete caissons were also in the dock which will be deballasted and floated out to become mooring dolphins at the end of ASRY's two finger repair jetties already completed. The dock is safely flooded and the cofferdam in front of the dock gate dredged away. The dock gate is enroute via the Mediterranean, having been built at Lisnave, and is being towed by two of ASRY's six tugs also built in Portugal. This will arrive at Bahrain this month, allowing one month for fitting and testing before the first VLCC arrives for docking at ASRY. Not only will this be a first for ASRY but also for the Arabian Gulf, as ASRY will be in operation at least 12 if not 18 months before any local competitor.

Dytam Establishes New York Office

A.E. Stanford, president of Dytam Marine Inc. (USA), has announced the opening of a New York office at 1114 Avenue of the Americas, New York, N.Y. 10036.

Mr. Stanford, a director of Dytam Tanker GmbH (Germany), will be responsible for the worldwide coordination for the market-

ing of concrete LNG carriers and floating structures such as barges, floating storage and liquefaction platforms.

A graduate of the State University of New York Maritime College in 1950, with a degree in marine science, he subsequently served as an engineering officer in the United States Navy and United States merchant marine.

Mr. Stanford worked with Gibbs

& Cox, Bethlehem Steel, and Gulf Oil, securing considerable experience in marine design and operations. He then joined Esso International Services, where he was responsible for the company's entire European construction program, including the building of over 30 crude oil tankers ranging in size from 80/250,000 dwt.

In 1970, with Tampimex Oil Products Limited, London, Mr.

Stanford formed Tank SAPP (UK) Ltd., a company concerned with marine safety and the prevention of pollution. He is a director of Tampimex Tankers Ltd. and president of Tampimex Tankers Inc. In this position, he is responsible for the coordination of all marine activities of the Tampimex Group, especially with transportation of LNG.



A.E. Stanford

Mr. Stanford is a chartered engineer, a Member of The Society of Naval Architects and Marine Engineers, a fellow of the Institute of Marine Engineers and a fellow of the Royal Institution of Naval Architects.

New 100-Pound-Capacity Portable Blast Machine

Clemco Industries has expanded its line of portable pressure blast machines to include a new, 100-pound-capacity unit. The Model 1042 (10-inch diameter, 42-inches high) has an extra-wide wheel-base which results in surprisingly easy maneuvering and stability during blasting. It features a fully adjustable abrasive metering valve, unrestricted 1/2-inch piping, and a new Recova remote control system with a jam-proof outlet valve. Typical applications include spot cleaning concrete and stucco, deburring machined parts, and touching up weldments and small castings.

With the addition of the Model 1042, Clemco Industries now offers portable blast machines with sand capacities of 50, 100, 150, 300, and 600 pounds.

For free literature on the new Model 1042 and other Clemco Blast Machines, write B. Blythe, Clemco Industries, 2177 Jerrold Avenue, San Francisco, Calif. 94124.

Lykes Bros. Move San Francisco Office

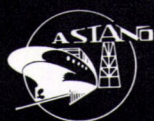
The San Francisco, Calif., office of Lykes Bros. Steamship Co., Inc., established in 1973, has moved to a new location at 50 California Street, it was announced by Barton W.B. Jahncke, vice president-sales. The zip code is 94111.

Lykes also has an office at 400 Oceangate in Long Beach, Calif., which was opened earlier this year. Robert E. Collins, headquartered in San Francisco, is Lykes's Pacific Coast district manager.

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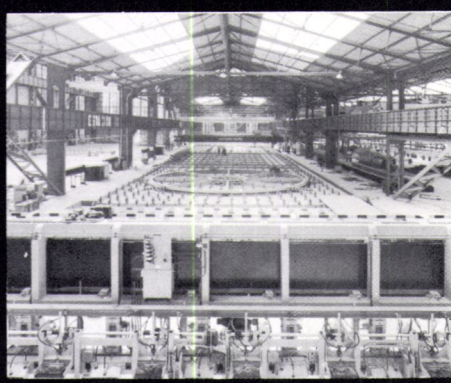
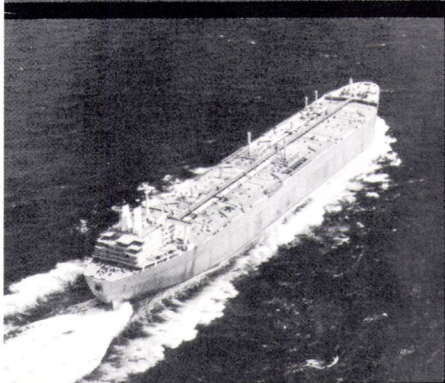
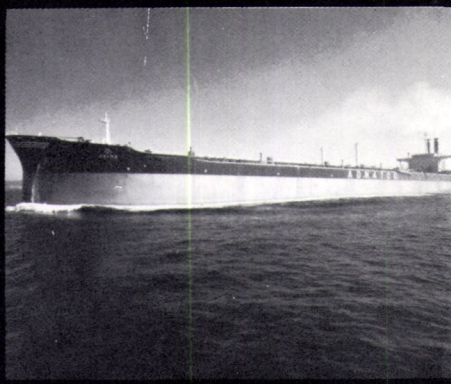
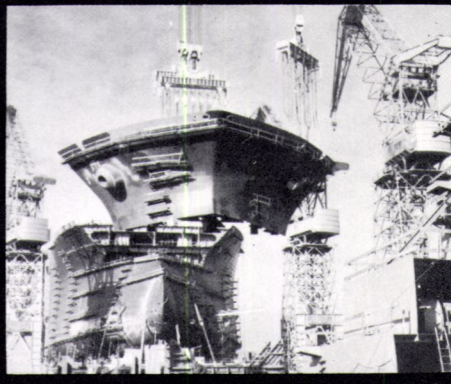


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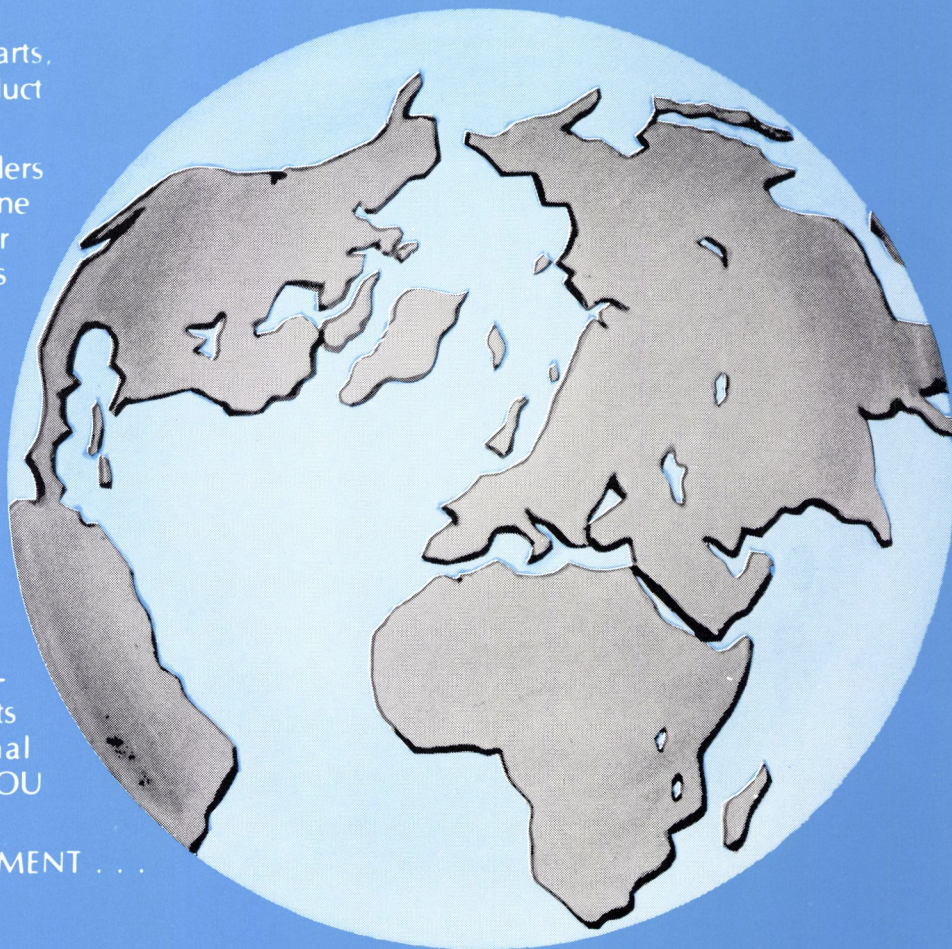
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Siltemp Thermal Barrier Controls Fire Hazards

In the self-sufficient environment of oceangoing vessels and offshore drilling rigs, personnel and hazardous materials must necessarily share confined quarters. The possibilities for catastrophe are obvious. In such instances, control of fire hazards and protection of personnel and

equipment make "Siltemp" thermal barrier, from Haveg Industries, Inc., an important on-board safety product. Haveg is a subsidiary of Hercules Incorporated.

Siltemp is a strong, lightweight, flexible silica fabric with a melting point in excess of 3,000 degrees that can be draped or stretched trampoline-style between hotwork and vulnerable personnel, property or flamma-

bles, to provide a thermal barrier. When layered, each thickness of Siltemp adds significantly to improve the insulation properties of the material by as much as 80 percent. Such layering allows ambient temperatures to be maintained near sensitive materials.

Siltemp thermal barrier, as cloth, tape and cordage, meets the requirements of MIL-I-24244 specification, relating to chloride

content and resistance to corrosion, so important to many industries. It contains no asbestos, a material that has been challenged for health reasons, and is valuable also for its chemical resistance and electrical insulation properties.

Information on Siltemp is available from **Allen Baker**, Hercules Incorporated, Room 415, 910 Market Street, Wilmington, Del. 19899.

Southwest Marine, Inc. Awarded \$2,500,000 For Fourteen Workboats

Southwest Marine, Inc., a marine repair and construction facility located in Chula Vista, Calif., has been awarded a \$2,500,000 contract by the U.S. Naval Sea Systems Command to build fourteen 50-foot LCM workboats, according to **Arthur Engel**, president of Southwest Marine.

The new boats are scheduled for delivery starting in July 1978 to naval installations in San Diego, Calif., and Norfolk, Va. Four of the craft are destined to be utilized in conjunction with the Navy's new AD-41 class destroyer tenders.

The workboats have a 15-foot beam, displace 95,100 pounds (full load), and are powered by two 200-hp model 6-71 General Motors diesel engines.

Southwest Marine is a multifaceted marine facility located on seven acres of waterfront property on San Diego Bay. Besides Government boat construction, the company's primary emphasis is on Government and commercial ship repair.

Proposals For Research Requested By MarAd

The Maritime Administration has issued a Request for Proposals (RFP) for a 12-month research and development contract for a Hull Stress Warning System for Great Lakes Carriers.

The purpose of such a system is to alert ship operating personnel when the stress created by loading, ballast, and/or environmental conditions begins to approach maximum safety limits. This RFP is for the identification of the technical and operating requirements for a hull stress warning system which are particular to the Great Lakes. Those requirements will be compared with existing systems and used to develop a next generation system designed specifically for the Great Lakes.

The research will be complementary to current private stress warning system research for Great Lakes vessels and research on oceangoing systems being conducted at MarAd's National Maritime Research Center at Kings Point, N.Y.

When you're in America, do as the Spanish, French, Germans, Swedes and Russians do...

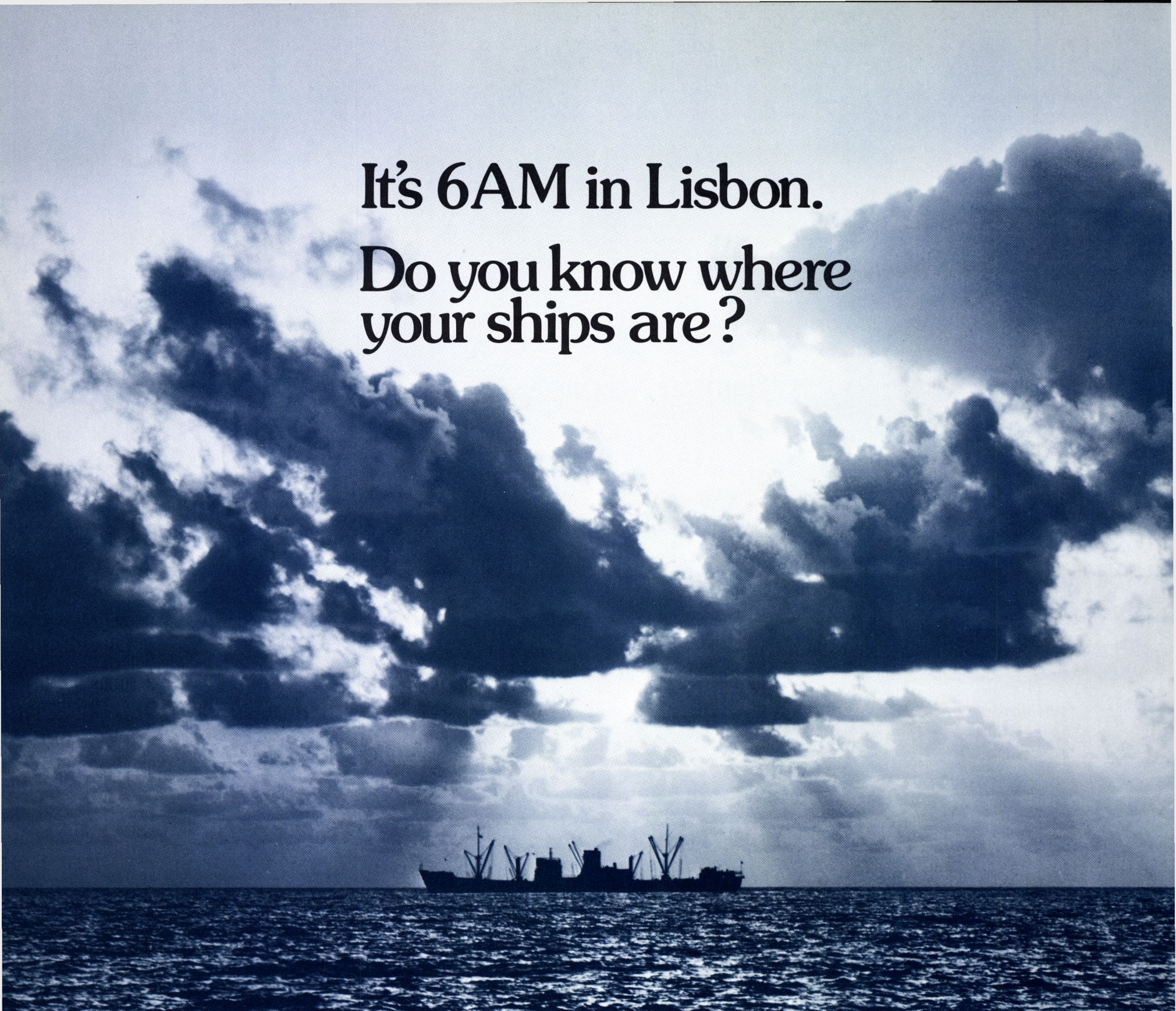
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Whether your requirement is telex, cable, voice, facsimile or data communication, Western Union International and Marisat offer a unique blend of new world technology and old world know-how and experience to most economically serve your needs.

Our years of experience in furnishing shipboard satellite systems—for all eleven Apollo space shots, three Skylab missions and the Apollo-Soyuz linkup—have resulted in the development of technically superior, fully seaworthy terminal equipment. Maintenance is available worldwide.

For more information on Marisat via WUI, call or write Western Union International, Marketing Dept., (212)363-5828.



Western Union International, Inc.

26 Broadway, New York, N.Y. 10004

Ryan-Walsh Names Robert Matthews VP

Robert S. Matthews, manager of Ryan-Walsh Stevedoring Company's Gulfport, Miss., operations has been appointed vice president of that firm.

The appointment is the second major promotion Mr. Matthews has received within six months, having only recently received his managerial title. Mr. Matthews is

also vice president of Southern Steamship Agency, Inc., a wholly owned subsidiary of Ryan-Walsh.

"We regard his promotion as proper recognition of his experience, professional growth, and contributions to our firm," said Ryan-Walsh president G.L. Leatherbury in announcing the appointment.

Mr. Matthews has been in Gulfport since 1971, though his experience in maritime commerce goes

much farther back. He joined Ryan Stevedoring Company at Pascagoula, Miss., in 1969, transferring to Gulfport in 1971. When Ryan and Walsh Stevedoring Companies merged in 1974, Mr. Matthews was appointed assistant to the Gulfport manager for Ryan-Walsh. Prior to joining Ryan, Mr. Matthews worked for Waterman Steamship Corporation and later for Lykes Bros. Steamship Company.

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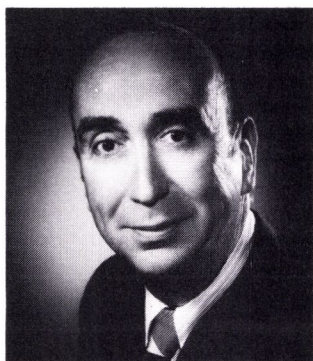
ABS NEW HEADQUARTERS — The American Bureau of Shipping (ABS) purchased the 21-story office building of the American Express Company at 65 Broadway in lower Manhattan (New York City), for its international headquarters. New York-based since it was chartered in 1862, the ship classification society will move there upon completion of renovations. The organization currently employs more than 500 people at its New York office, with an additional 700 employed at its exclusive and non-exclusive offices throughout the world. The Society establishes internationally accepted Rules for the design, construction and periodic survey of merchant ships and other marine structures. Subsidiaries of the Bureau, ABS Worldwide Technical Services, Inc., and ABS Computers, Inc., will also be located at the new headquarters building. American Express will maintain its Travel Service Office in the building.

Tidewater Marine Names Burch Williams To New Corporate Post

Tidewater Marine Service, Inc. chairman and president **John P. Laborde** has announced the appointment of **Burch Williams** to the newly created position of director of corporate development of the New Orleans, La.-based oil and gas service company. Mr. Williams, formerly senior vice president of the investment banking firm of Blyth Eastman Dillon & Co., Inc. of New York, and a member of the board of directors of Tidewater since 1956, assumed his new position on retirement from Blyth Eastman Dillon & Co., Inc. on July 1.

In making this announcement, Mr. Laborde noted that Mr. Williams will have responsibility for developing and studying opportunities for the growth of the company through acquisitions and other means and investor relations.

Sapolin Paints Names H.W. Evans Jr. President



Herbert W. Evans Jr.

The board of directors of Sapolin Paints Inc., Danbury, Conn., has elected **Herbert W. Evans Jr.**, presently senior vice president for marketing, to the presidency of the corporation. He remains as president of Woolsey Marine Industries, Inc., a wholly owned subsidiary of Sapolin. The announcement was made by **Richard J. Eckart**, board chairman.

Mr. Evans joined Sapolin in 1947 after military service in World War II and graduation from Yale University, and shortly thereafter became affiliated with Woolsey sales. Following various field and management positions, he was elected president of Woolsey in 1967. He is currently on the board of directors and treasurer of the National Association of Engine and Boat Manufacturers. In addition, he serves on the Marine Paint Manufacturers and Trade Sales Marketing Committees of the National Paint and Coatings Association. He is an avid sailing enthusiast and a member of the Orient Yacht Club of Long Island.

IACS Group Agrees To Develop Additional Safety Standards

The Council of the International Association of Classification Societies (IACS) has agreed to develop classification requirements that would augment the surveillance by the societies of items which recent investigations have revealed to be potential sources of hazard or pollution.

Announcement of the agreement was made in the United States by a three-member delegation from the American Bureau of Shipping (ABS), which attended the recent 10th annual meeting of the IACS Council in Paris.

The ABS representatives were **Charles J.L. Schoefer**, executive vice president; **William N. Johnston**, senior vice president, and **Ralston Hayden**, assistant chief surveyor.

The IACS Council approved a number of unified requirements dealing mainly with materials for hull structure, machinery, tanker safety, and containers. The Council also approved several unified interpretations of the Load Line

Convention, which will be recommended to governmental maritime authorities for adoption in the interest of uniform implementation of the Convention worldwide.

In addition to ABS, the following ship classification societies were represented at the meeting: Bureau Veritas, Det norske Veritas, Germanischer Lloyd, Lloyd's Register of Shipping, Nippon Kaiji Kyokai, Polish Register of Shipping, Registro Italiano Navale,

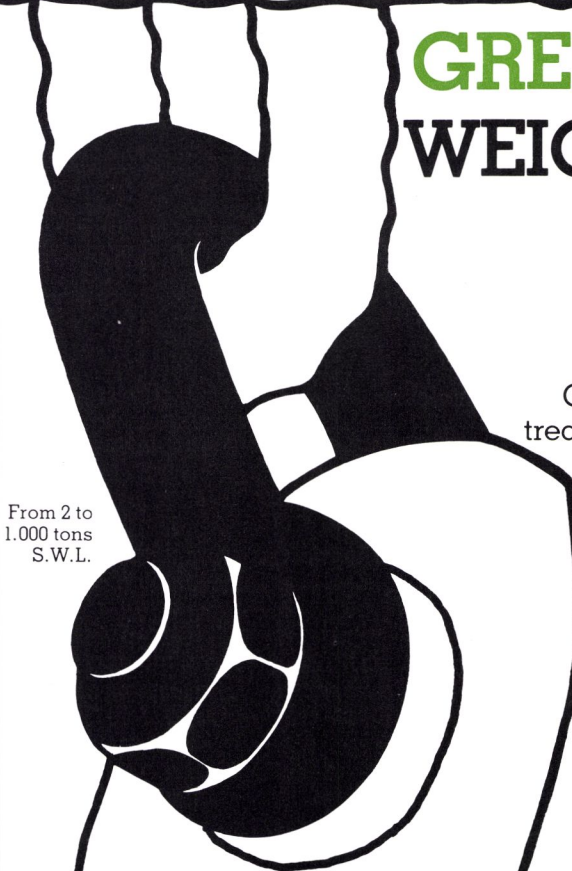
and the USSR Register of Shipping.

The DDR-Schiffs-Revision und Klassifikation participated in the meeting as a representative of the Associates of IACS, and the Inter-Governmental Maritime Consultative Organization (IMCO) was also represented.

Chairman of the meeting was **G. Bourceau**, managing director, Marine Departments, Bureau Veritas.

The IACS Council will hold its next meeting in May 1978 in Paris.

IACS was formed in 1968 to give the classification societies a unified voice for consultation and cooperation with IMCO and other national and international maritime organizations. In addition, IACS provides an effective means for the societies to discuss and resolve problems of mutual concern.



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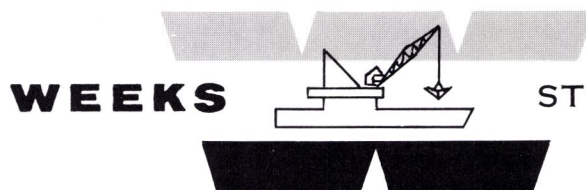
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Icebreaker Barge With Twin Notches In Stern Leads Arctic Sealift

The 10th annual Arctic Marine Freighters sealift to Prudhoe Bay, Alaska, has departed from Seattle, Wash., according to an announcement by **Roy D. Jurgensen**, Seattle, executive vice president of Crowley Maritime Corporation's Offshore Group.

The 1977 sealift involves eight

barges and five tugs on the line haul, as well as lighter barges for the lighterage operation at Prudhoe Bay, and a fleet of trucks and crawlers for inland hauling to final destinations on the North Slope. The icebreaker barge Arctic Challenger, which made its debut last year by leading the 1976 fleet through the ice to Prudhoe Bay, is again in the lead, carrying a full deck load of cargo.

The 300-foot by 105-foot Arc-

tic Challenger, designed and constructed especially for use in Arctic ice conditions, is equipped with twin notches in the stern for pushing by two 9,000-hp tugs as it cuts a channel through ice for the 100-foot-wide sealift barges.

This year's fleet will haul 44,000 tons of cargo to the North Slope oil fields. The cargo includes modular facilities for oil processing plants and general cargo for drilling operations.

Loading for the sealift took

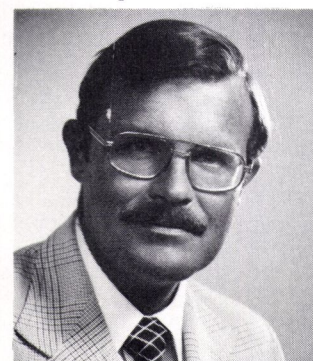
place in Seattle, Tacoma, Vancouver and Anacortes, Wash., and Alameda, Calif.

All of the 1977 armada will rendezvous near Point Barrow, northernmost tip of Alaska. Point Barrow, 150 miles west of Prudhoe Bay, is surrounded by ice except for a period of about six weeks each year. During this time, sealift crews must tow their barges to Prudhoe Bay, discharge the cargo via a complex lighterage system, and sail back past Point Barrow before ice moves in again for the long winter.

Once past the challenge of the Arctic ice pack, Arctic Marine Freighters crews will face complications brought about by shallow water surrounding the entire Prudhoe Bay area. This requires a portion of the flotilla to anchor several miles offshore and lighter cargo to smaller barges for the trip to the dock. The huge modules, some weighing up to 1,300 tons and towering to nine stories, are loaded and discharged by crawler transporters that fit under the modules, hydraulically lift them and "walk" them on and off the barges.

At the end of the 1977 sealift, Arctic Marine Freighters will have delivered nearly three-fourths of a million tons of cargo to Prudhoe Bay since the sealift began 10 years ago.

Roger M. Sykes Joins Arthur Levy Boat Service



Roger M. Sykes

Arthur Levy Boat Service, Inc., has appointed **Roger M. Sykes** sales manager for Western Hemisphere operations, and has established a sales office in Houston, Texas.

Mr. Sykes will handle Arthur Levy sales and contracts for North, Central and South America, and also will provide liaison for Houston-based projects in the Eastern Hemisphere.

Mr. Sykes was formerly sales manager, North and South America, for Zapata Marine Service, and prior to that had been with Cameron Iron Works for six years.

The new Levy office in Houston is at 2400 Fountain View, Suite 100, Houston, Texas 77057. Arthur Levy Boat Service, a Petrolane Company, provides diversified offshore marine support services with a modern fleet of 70 vessels, including tug/supply, anchor handling/supply, supply, utility and crewboats.

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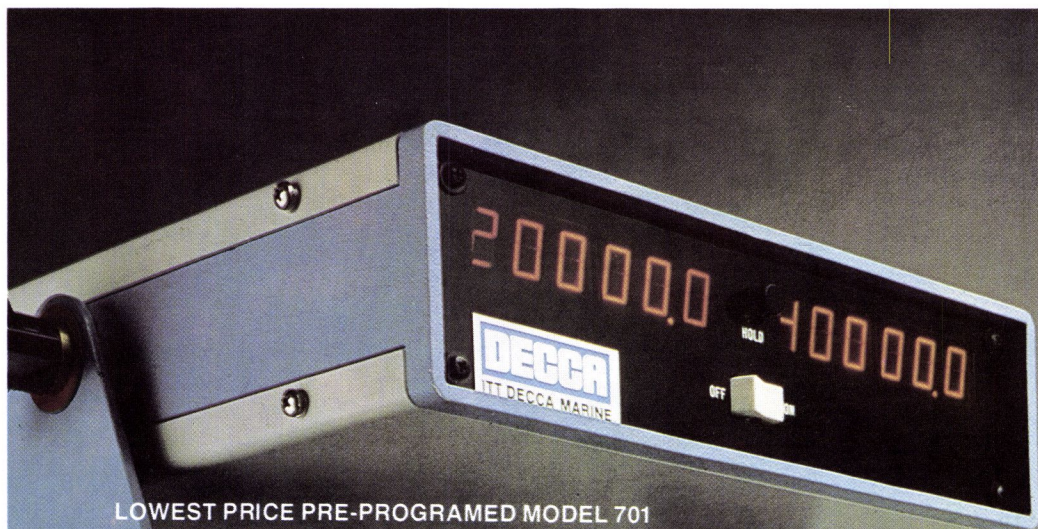
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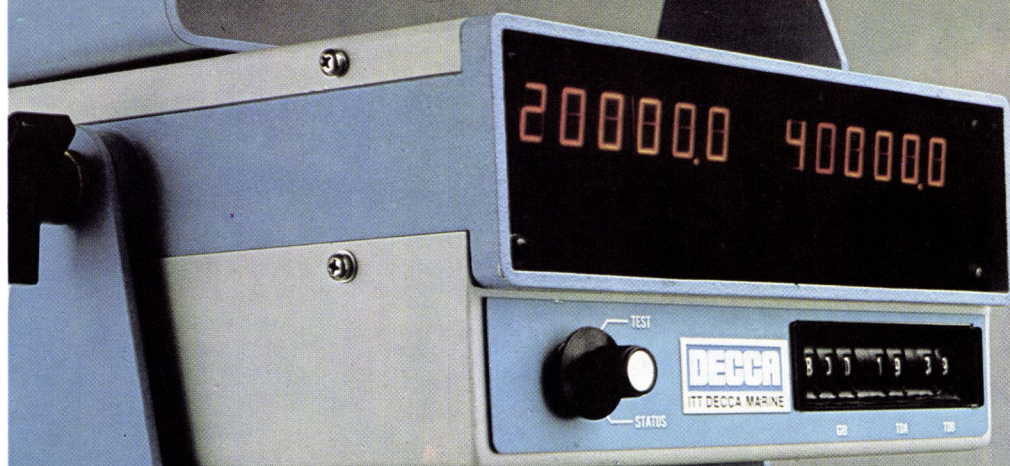


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Eleusis Shipyards Elect New Board Of Directors

The General Assembly of the Shareholders of "Eleusis Shipyards" S.A., Athens, Greece, recently elected a new board of directors as follows:

President, Adm. **John N. Strat-akis**, Shipowner; vice president, Dr. **Jean P. Ioannidis**, Professor of Marine Engineering National

Technical University of Athens, Ph.D. London University; managing director, **Anthony D. Dalaklis**, Dipl. Electrical Engineer, Econ. Industrial Psychology; technical managing director, **Pandelis D. Velissaropoulos**, Mechanical Engineer, M.I.T., M.B.A. Harvard; financial managing director, Dr. **Peter P. Papageorgiou**, Sr. Lecturer of Economics at the Athens Graduate School of Economics and Business Sciences.

Members of the board are as follows:

Gregory C. Demetriou, Dipl. Ing. Marine Engineering T.U. Hannover, M.Sc. Econ. (Management) London School of Economics; **Como. Miltiades A. Kamaris**; Dr. **Theodosios P. Boufounos**, Naval Architect-Marine and Ocean Engineer D.Sc. M.I.T.; Colonel Hellenic Airforce, **Miltiades N. Marcou**; **Basil D. Maris**, Attorney-At-Law; **Comdr. Dimitrios C. Mit-**

satsos, Dipl. Electrical-Mechanical Engineer, National Technical University of Athens; **Theo. V. Sioufas**, Attorney-At-Law.

National Supply Names World Marketing Group For Drilling Equipment



A.J.R. Petersen

National Supply Company, 1455 West Loop South, Houston, Texas 77027, major oil-field equipment manufacturer, announces that it has consolidated its domestic and international marketing effort for drilling equipment into a single worldwide organization under its National Drilling Equipment operation.

To head the global marketing organization, **A.J.R. (Pete) Petersen** is appointed to the newly created position of general manager-marketing, National Drilling Equipment.

Reporting to Mr. Petersen are four area managers: **William F. Jennings** — North America; **Philip P. Musmeci** — Europe, Africa and the Middle East; **Thomas B. Herndon** — Latin America, and **Robert D. Stottlemeyer** — Far East.

According to **T.C. (Ted) Rogers**, National Supply president, the new organization will enable the company to respond more efficiently to global requirements for drilling equipment. He expects the more concentrated marketing activity to result in greater recognition of the wide range of products available from National Supply. He points out that the company manufactures the most complete line of drilling and production equipment in the oil-field supply industry.

National Supply manufactures drilling equipment at plants in Gainesville, Texas, Torrance, Calif., and Stockport, England.

Trans Union Offers Brochure On Leasing

Customer benefits of such innovative lease plans as rental-purchase leasing, stand-by leasing, skip-payment leasing, and security deposit leasing are explained in a new free 12-page four-color brochure offered by Trans Union Leasing Corporation.

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HS 77-1

A man in a white naval officer's uniform and cap is leaning over a ship's control console. He is looking directly at the camera with a serious expression. The background shows the interior of a ship's engine room with various pipes and machinery.

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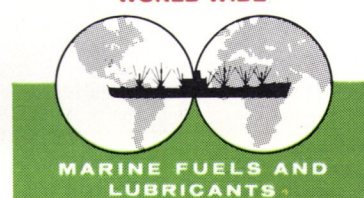
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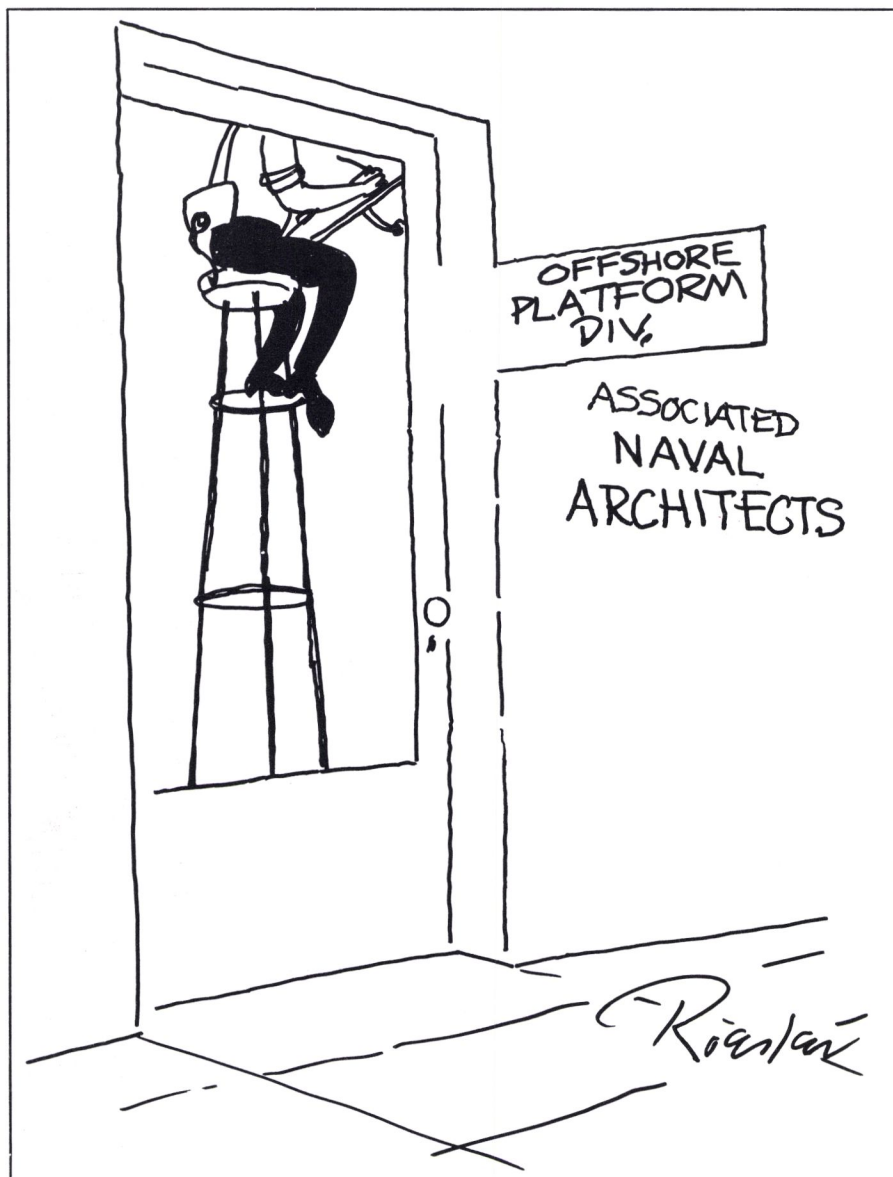
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CONGRESSIONAL BREAKFAST — Among guests at the cocktail reception preceding the annual Congressional Breakfast held recently, which is sponsored by three major New York-New Jersey port groups, were the above (left to right): Adm. **John M. Will**, USN (ret.), an honorary director of The Maritime Association of the Port of New York, and president of Arthur Tickle Engineering Works; Congressman **Joseph P. Addabbo** (N.Y.-7th District); Congressman **Leo C. Zeferetti** (N.Y.-15th District); Congressman **John M. Murphy** (N.Y.-17th District); **Francis J. Barry**, president, Circle Line, and **James P. McAllister**, chairman of the board, McAllister Brothers, Inc. and president of the NY-NJ Port Promotion Association, one of the sponsors of the event. At the breakfast the following morning, shipping and other business and civic officials met with members of Congress from the New York-New Jersey port region, and members of Federal committees and commissions whose work is concerned with national maritime affairs, to urge their legislative support for local harbor improvements and the development of shipping and commerce in the bistate area. The breakfast is sponsored jointly each year by the New York-New Jersey Port Promotion Association, The Port Authority of New York and New Jersey, and the New York City Council on Port Development and Promotion.



American-Arab Chamber To Open New Orleans Office

The American-Arab Chamber of Commerce has announced plans to open an office in the International Trade Mart of New Orleans, La.

Dr. **Atef Gamal-Eldin**, president of the American-Arab Chamber in Houston, Texas, made the announcement at a meeting of the ITM board of directors. The New Orleans office will be an extension of the Houston operation to form the Southwest American-Arab Chamber of Commerce.

There are other such chambers now in New York, N.Y., San Francisco, Calif., and Chicago, Ill.

Basil J. Rusovich Jr., president of ITM and also president of Transoceanic Shipping Company, Inc., said increased trade with the oil-rich Mideast is essential to the growth of the Port of New Or-

leans and the economic advancement of the entire region.

He said vast developments are scheduled in the Mideast, with currently about \$200 billion in construction projects in the works. "New Orleans in 1976 handled approximately \$350 million in cargo for this area of the world. This is only a trickle, a beginning, compared to the total trade the port and area could develop with this part of the world," Mr. **Rusovich** added.

The American-Arab Chamber conducts a variety of programs designed to stimulate U.S.-Arab commerce, including arranging for visitors from the Middle East, organizing the U.S. trade missions to that part of the world, and general trade promotion.

Dr. **Eldin** said the Arab states are not interested in competing with U.S. businesses, but want to develop a broad range of trading avenues between the U.S. and the Middle East.

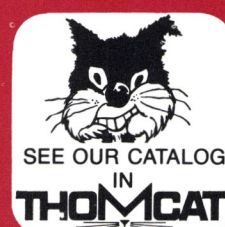
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DP-19

Halter Marine Launches 180-Foot Vessel For Martin

Halter Marine Services, Inc., the largest builder of offshore support vessels in the world, has launched the offshore supply ship Ted Martin, being built for Martin Offshore Boats, Inc. of Golden Meadow, La. The company operates vessels in support of the oil and gas industry offshore, towing drilling rigs and furnishing vital material to offshore production operations.

The Ted Martin, built at the Moss Point, Miss., division of Halter Marine Services, has principal dimensions of 180 feet in length, a breadth of 38 feet and a depth of 14 feet, with a normal operating draft of 12 feet.

Normal displacement of the ship is 1,500 long tons.

She is equipped with two General Motors Electro-Motive Division 8-645-E6A diesel engines with 975 bhp each at 900 revolutions per minute. Electrohydraulic steering is by Sperry Marine Systems, propellers are 78-inch diameter, four-bladed stainless steel, and reverse/reduction gearing is from Reintjes with a 3:1 ratio.

The vessel is American Bureau of Shipping classed A-1, Maltese Cross, Full Ocean Service, and meets United States Coast Guard requirements for the oil and mineral industry.

Auxiliary and other major equipment includes a Murray Tregurtha bow thruster driven by a 300-horsepower 8V-71 diesel

engine, a double wildcat anchor windlass, Gardner Denver mud compressor, two 99-kw generator sets, and an 11-circuit alarm panel for engine monitoring. Fire protection capabilities are USCG approved, sanitary water system is by Barnes, and air compressors are from Quincy. Galley equipment includes a triple stainless steel sink, dishwasher, electric range with oven, and a 29-cubic-foot refrigerator/freezer.



The Ted Martin was built at Moss Point, Miss., in one of the seven shipyards operated in the United States by Halter Marine Services, Inc.

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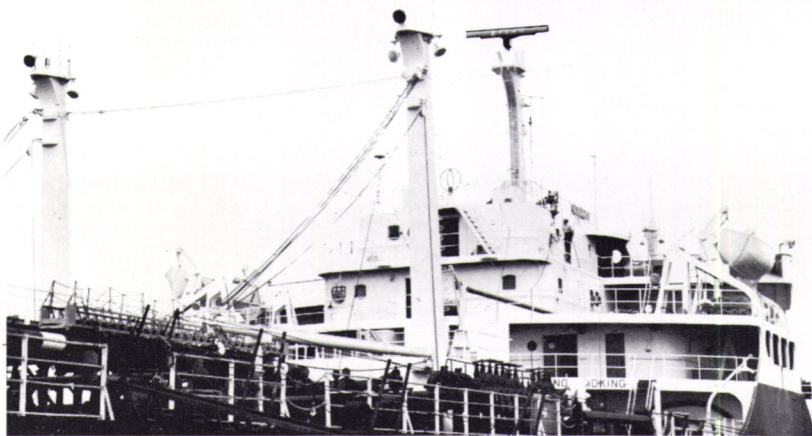


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FROM TEXACO — The Maritime College at Fort Schuyler Foundation, Inc., has been presented with a \$2,000 unrestricted contribution from the Marine Department of Texaco Inc. The gift was presented by **Charles J. Gay**, assistant general manager of the Texaco Marine Sales Department and a 1943 graduate from the College, to Cadet **Richard K. Kurrus**, 1/c, Regimental Commander, representing the Foundation. Looking on is Adm. **Sheldon H. Kinney**, president of the Maritime College and the Foundation. The Maritime College at Fort Schuyler Foundation, Bronx, N.Y., was established in 1976 to assist the College in its academic scholarship programs. This was Texaco's second unrestricted gift to the College under a special \$4,000 grant program.

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- 6 120 VDC — 1800 RPM. TURBINE: M-20-EH — 20 lbs dry & saturated — 25" vacuum. 7283 RPM. GEAR: 7283/1800. GENERATOR: 60 KW — 120 VDC — 500 amps — SK — stab. shunt wound.

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Forced draft fan impeller

WESTINGHOUSE C-25 CARGO PUMP TURBINE ROTOR

- 9 VICTORY-AP2 MAIN PROPULSION Westinghouse AP2 19-stage HP rotor for 6000 HP Victory — serial #4A-2079 — equal to new. Unused surplus AP2 — Victory Ship complete HP & LP turbines Allis-Chalmers HP & LP Westinghouse LP AP2 with throttle valve G.E. HP & LP with throttle valve

VICTORY-AP3 MAIN PROPULSION NEW 8500 HP G.E. TURBINES

- 10 Large Victory or C-3 HP #72271 LP #72272 10 Boxes spare parts, tools & fittings. With maneuvering valves.

- 11 8500 HP G.E. — C-3 OR VICTORY
H.P. — 8-stage — 6159 RPM — serial 62043
L.P. — 8-stage — 3509 RPM — serial 62042
G.E.I. 16263

VICTORY SHIP AUXILIARY TURBO GENERATOR SET ROTORS

- 12 300 KW 5965 RPM JOSHUA HENDY
Turbine — 3H-69 Gear — 52269
Turbine — 3H-52 Gear — 52252
Turbine — 3H-62 Gear — 52262
ALSO WESTINGHOUSE 2A & 5A SERIES

- FOR T-2 VESSELS -

G.E. COMPLETE T-2 TANKER TURBO GENS

- 13 TURBINE: DORV-325M — 525 KW — 5645 RPM — 435 PSIG — 28" exhaust. REDUCTION GEAR: S-162 — form D — 5641/1200. A.C. GENERATOR: 500 KVA — 400 KW — 440/3/60 — 1200 RPM — 0.8 PF. D.C. EXCITATION GENERATORS: 75/55 KW — form AL — 110 volts DC. With new type amplydines.

538 KW WESTINGHOUSE T-2 AUXILIARY GENERATOR — COMPLETE

- 14 TURBINE: 538 KW @ 5010 RPM — 438 PSIG — 750° TT — 28 1/2" vacuum. GEAR: 5010/1200 RPM. A.C. GENERATOR: 400 KW — 450/3/60/1200 — 0.8 PF. DC EXCITER: 32.5 KW — 120 volts (variable voltage) — shunt — 4-pole — DC excitation 5 KW. ALWAYS WELL MAINTAINED BY MAJOR OIL CO.

T-2 UNUSED G.E. MAIN PROPULSION STEAM TURBINE WITH ROTOR

- 15 10-Stage — 435# — 720° TT — turbine complete with rotor — serial #109166 — 4925/5400 KW — 3600/3720 RPM — 28.5" vacuum.

WESTINGHOUSE MAIN PROPULSION STEAM TURBINE WITH ROTOR

- 16 EX-CHEVRON VESSEL "MACGAREGILL" Shrouded—like-new condition. Will sell rotor separately. WESTINGHOUSE MAIN PROPULSION TURBINE Ex"Pecos" — unshrouded — serial 2A-7733-2 type A

UNUSED G.E. MAIN PROPULSION STATOR

- 17 Type ATB-2—serial #6978272. 2300/2370 volts — 60/62 cycles — 3-phase — 3600/3720 RPM — armature amps 1237/1315 — 4925/5400 KW — 1.0 PF. Westinghouse stator — from Ex "Pecos"

WESTINGHOUSE REVOLVING FIELDS

- 18 For T2SE-A-1 Tankers. With ABS. Just received back from Westinghouse Service Shop. Ex-Chevron vessel "MacGaregill".

WESTINGHOUSE 538 KW AUX. GENERATOR EXCITER ARMATURE

- 19 We have both types:
110 KW — 32 KW — 5.5 KW
110 KW — 28 KW — 5.5 KW

538 KW WESTINGHOUSE AUXILIARY TURBINE ROTORS

WESTINGHOUSE T-2 TANKER MAIN GENERATOR COOLERS & MAIN MOTOR COOLERS

- 21 Reconditioned — with A.B.S. Units all ready to ship.

G.E. 525 KW AUX. GENERATOR EXCITER ARMATURE

- 22 75-55 KW

NEW STYLE AMPLIDYNE

- 23 5LY148A2 — type A.M. — frame 605

AUXILIARY GENERATOR ROTORS

- 24 G.E. aux. generator rotors — DORV-325M — for 525 KW turbo generator sets

T-2 MAIN CARGO PUMPS

- 25 Ingersoll-Rand 6GT — 2-stage — bronze — 2000 GPM — 280" head

G.E. 200 H.P. CARGO PUMP MOTORS

440/3/60/1750 RPM — 40° — Frame 557-Z

MISSION TANKER T2SEA2 CIRCULATING PUMP MOTOR

150 HP — 440/3/60/590 RPM. Frame 6335 — type KF — 204 amps

T-2 MAIN ROTOR

- 28 LARGE G.E. MAIN PROPULSION SCHENECTADY TURBINE ROTOR

Turbine serial 77418 — reconditioned with certificate. Just out of Beth shop 1970

T-2 MISCELLANEOUS, PUMPS ETC.

- 29 10 HP Labour Self-Priming Bilge Pumps • Rudder 13 1/2" Rudder Stocks • Main Injection 3-Way Valve Main Condensate Pumps • Fuel Oil Service Pumps Magnablast Breaker • 1 Set New Bull Gear & Pinion for G.E. 525 K.W. Diesel Gen Model S-162 • 32", 24", 15" Rubber Expansion Joints • Mission Tanker Steering Gear Pumps

T-2 WINDLASSES

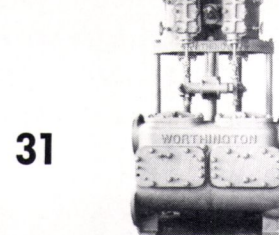
(Located West Coast)

- 30 AH&D Model S-505 — for 2 5/16" chain. Engine 12x14 — operating weight 42,700 lbs. F.O.B. Portland, Ore. 1 Hesse Ersted — 12x14 — from Pecos

PUMPS

BRONZE T-2 TANKER STRIPPING PUMPS

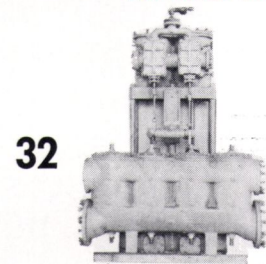
14x14x12 — 700 GPM at 100 lbs. Same pump available in steel for fuel oil transfer, etc.



31

WORTHINGTON 16"x14"x18" VERTICAL DUPLEX STRIPPING PUMP

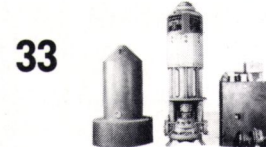
1400 GPM @ 110 PSI; suction lift 11.5 ft. Steam back pressure 15 lbs. Suction 14" — discharge 10" — steam 2 1/2" — exhaust 4". Overall width 6' 8" — overall height 9' 1 1/2" — depth 3' 9 1/2" — approx. wt. 10,000 lbs.



32

NEW WORTHINGTON VERTICAL SUBMERSIBLE BILGE PUMP

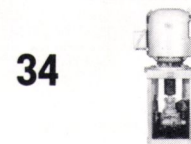
For emergency use on passenger ships, etc. PUMP: JAS — 264 GPM — 171' head — two 6" inlets — one 5" outlet. MOTOR: 40 HP — 230 VDC — 149 amps.



33

NEW BLACKMER FUEL OIL TRANSFER PUMP

Rotary — 50 GPM — 50 lbs. — 2" — 5 HP — 440/3/60 — with starter & spares



34

KNOWN 'ROUND THE WORLD

THE BOSTON

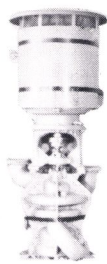
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UNUSED BLACKMER VERTICAL ROTARY PUMP

35

4" — 100 GPM — 100 PSI — 15 HP — 440/3/60 — gear head



UNUSED BRONZE FEED-WATER BOOSTER PUMPS

36

220/237 GPM @ 144' head — 2-stage — 1750 RPM with 30 HP 440/3/60 motor control & spares. Built for USN

NEW DeLAVAL PUMPS Fuel Oil Service Testing Boiler Feed

37

High pressure rotary pumps — 186 GPM @ 1300 PSIG — 1750 RPM. Electro-Dynamic 20 HP motor — 440/3/60/1740 RPM.

400 GPM BRONZE FIRE & FLUSHING PUMP

38

400 GPM @ 150 lbs. 73 HP — 440/3/60/3550 RPM — 6" suction — 5" discharge

BRONZE FIRE OR GENERAL SERVICE HIGH PRESSURE PUMPS — BRONZE

39

2000 GPM — 337' head — mfg by Frederick Iron & Steel Co. — 8x8 — bottom suction — side discharge. MOTOR: 250 HP — 230 volts DC — 1900 RPM — 880 amps. With controller & grids. Condition like new.

TURBINE FIRE PUMPS — BRONZE

40

Worthington turbine — 440# — 448° — 3500 RPM — 75 HP — 15# back pressure — 750 GPM @ 125 lbs — 6" suction — 4" discharge.

RECONDITIONED WORTHINGTON FIRE PUMP

41

UBI — 3" — 450 GPM — 125 lbs — 1750 RPM. MOTOR: 50 HP — 230 VDC — 178 amps — type SK — frame 133 — compound — 1310/1750 — with magnetic starter.

LUBE OIL SERVICE PUMP

42

Quimby-Rotex — size 6D — 500 GPM @ 70 lbs — 6"x6" flange — 720 RPM. MOTOR: Allis-Chalmers — 40 HP — 230 VDC — type EBV-147S — stab. shunt — 148 amps. Complete with starter and rheostat — designed originally for C-1MAV-1 vessels.

DIESEL GENERATOR SETS

3

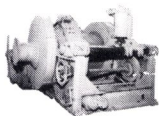
410 KW ENTERPRISE DIESEL GENERATOR SET

Enterprise DSG-6 6-cylinder diesel engine driving Westinghouse generator. 250 volts DC — 1640 amps — 650 RPM — shunt wound.

WINCHES AND WINDLASSES

44

100,000 LB ALMON JOHNSON CONSTANT TENSION MOORING WINCHES WITH UNUSED SURPLUS CONTROLS



125 FPM. Driven by 50 HP 230 VDC.

DOUBLE-DRUM TOWING-MOORING-UTILITY WINCHES

45



DUTY: 30,000 LBS @ 50 FPM—15,000 LBS EACH DRUM USING BOTH DRUMS SIMULTANEOUSLY
DRUM: 22" diameter — 36" face — 2500 ft of 1 1/4" wire. Has spooling device. MOTOR: 75 HP — 230 VDC — under-deck mounted — 262 amps — 1140 RPM. Complete with all controls. Mfg by Commercial Iron Works. Winch heads declutchable. OAW 16'9" — OAH 57" — OA depth 7'7".

LIDGERWOOD DOUBLE DRUM TOWING & MOORING WINCHES

46



Capacity of wire: 1800' of 1/4" wire each drum. Duty each drum 30,000 lbs at 10/50 FPM. Both drums simultaneously 15,000 lbs each. Gypsy heads on either end. MOTOR: 75 HP — 120/240 volts DC — 254 amps — 575/1150 RPM. All controls.

UNUSED 70 HP McKIERNAN-TERRY WINDLASSES

47



2 1/4" Chain and two 10,640 lb anchor & 30 fathoms chain @ 30 FPM. 70 HP — 230 volts — shunt DC motors — 233 amps — 550 RPM — 55°C rise. Wildcat centers 47 1/2". Base 9'5" wide x 11' long. Weight 36,000 lbs.

9 x 12 2-SPEED ALL-STEEL STEAM WINCHES

for use as

MOORING WINCHES OR GENERAL USE

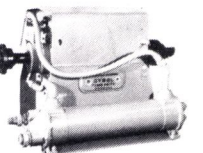
48

20,000 LBS @ 110 FPM — 7450 LBS @ 250 FPM
DRUM CAPACITY: 1250' of 1" wire in 9 layers or 2200' of 3/4" in 12 layers. Weight 11,300 lbs. DRUM DIMENSIONS: 22" diameter — 20" between flanges; flange diameter 40"; two 16" gypsies. Drum brake—contracting band type—asbestos lining—foot operated. WINCH DIMENSIONS: 12' long—8' wide—5'10" high. Reconditioned by U.S. Navy. Equal to new.

MISCELLANEOUS

MARINE GYROL FLUID DRIVE

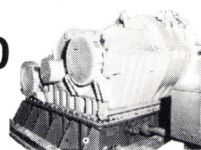
49



Type VS — class 2 — dual rotation. Mfg by American Blower — complete with oil cooler. Speed range 200 RPM minimum to 1750 RPM maximum. Unit locates between motor and pump. Suitable for pumping molasses, oil products, etc.

DOUBLE INPUT — SINGLE OUTPUT DIESEL REDUCTION GEARS — UNUSED

50

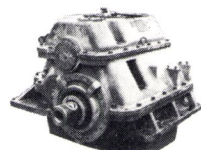


Farrell-Birmingham — 3200 shp. REDUCTION GEAR: 1.81:1 — handles two 1600 HP diesels @ 720 RPM. With hydraulic couplings & Fawick clutch. Port & starboard.

1 SET LST

REVERSE & REDUCTION GEARS

51



Port and starboard — with Airflex clutch. RATIOS: Forward 2.48:1 — Astern 2.52:1. Suitable for use with 12-567A and 12-278A propulsion engines.

EQUIPMENT FROM 1965 EX-CHEVRON TANKER "ELMER PETERSON" 19,500 S.H.P.

G.E. 750 KW TURBO GENERATOR—TYPE DVR-618N

52

TURBINE: 10022/1200 RPM—600#—850°F — 2" exhaust — 6-stage. GENERATOR: 750 KW—0.8 PF—450 volts—60 Hz—1200 RPM — 3-phase—model 5SJ2114AZ

G.E. 700 HP CARGO PUMP TURBINE AND GEARS

53

5000/1425 RPM — gear output. G.E. type DP-25M — 560 PSIG — exhaust 2 PSIG — temperature 490°

STEERING GEAR PUMPS

54

Heleshaw—L.P.36—serial #11955-11956

BOILER SAFETY VALVES

55

4" and 2" — Foster Wheeler boilers — 7150 sq. feet — FWB-3-37-4369/4370

SPARE IMPELLER

56

For main circulating pump

MAIN CIRCULATING PUMP AND MOTOR

57

G.E. motor—150 HP—440/3/60/705 RPM. PUMP: Worthington 24LV16 — 700 RPM — type KFR

58



16" BRASS PORTLIGHTS

15" and 16" brass portlights. 16" portlights are 3-dog type.

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A Salute To The American Merchant Marine Leadership In World Maritime Safety



Shown on the dais at Annual Awards Luncheon, left to right: Rev. Msgr. **Thomas McGovern**; Capt. **Thomas King**, Eastern Region Director, Maritime Administration, U.S. Department of Commerce; Rear Adm. **James J. Gracey**, Commandant, Ninth U.S. Coast Guard District, Cleveland; **Dave Walker**, general chairman, Marine Section, National Safety Council; **Al May**, vice president, American Institute of Merchant Shipping; **Fred S. Sherman**, chairman of board of Marine Transport Lines; Rear Adm. **Sam H. Moore**, Commander, Military Sealift Command, and Capt. **Jones F. Devlin**.

U.S.-flag shipping — on the oceans, the Great Lakes and Inland Waterways — has again proven to be an undisputed leader in world maritime safety.

This was evident during the Annual Ship Safety Awards Luncheon, sponsored by the American Institute of Merchant Shipping and the National Safety Council's Marine Section, held at the Downtown Athletic Club, New York, N.Y. U.S.-flag ships of all types were honored for, collectively, operating more than 127 consecutive years without a crew member losing a full turn on watch because of an occupational injury.

Government officials and key executives from all coasts and all segments of the U.S. maritime industry attended the luncheon in a salute to the American Merchant Marine's leadership in marine safety.

Two types of awards were given.

One was the National Safety Council Awards, covering a variety of interests, from dock workers, dredgers and towboats to shipyards and shipping fleets. These awards are based on the lowest personnel accident frequency rate among competing companies for the previous year. They were presented by Rear Adm. **James S. Gracey**, Commander, Ninth U.S. Coast Guard District (Great Lakes), and **David S. Walker**, manager, Boston Tow Boat Company, and general chairman of the NSC Marine Section.

The second, the Jones F. Devlin Awards, sponsored by AIMS and given to individual U.S. ships operating for extended accident-free periods (two, four and more years), were presented by AIMS vice president **Albert E. May** and Capt. **Jones F. Devlin**, retired United States Lines' vice president (Operations), for whom the Devlin Awards are named.

Devlin Awards were presented to 27 ships owned by 10 U.S.-flag

companies and three vessels operated by the Military Sealift Command. The 30 vessels collectively sailed 46,355 days (127 years) without a lost-time personnel accident onboard.

As an example of unusual safety competence, in the Devlin Awards' Dry Cargo Category, four vessels of United States Lines were honored for operating a total of 6,730 days (over 17 years) without a crew member losing a full turn on watch due to injury. One of those, the S/S *American Lark*, won a special Devlin award for sailing eight years without a lost-time personnel accident—a contest record for U.S.-flag cargoliners. For the first time, a U.S.-flag barge-carrying vessel won an award. **Charles P. McFaul**, safety director, Delta Steamship Lines, accepted a two-year award for the lighter aboard ship (LASH) vessel S/S *Delta Norte*, which has sailed 827 accident-free days to and from South America.

In the tanker category, Texaco Inc. led the way with six winners. Its Texaco Montana and Texaco Georgia operated 11 and 10 years, respectively, without a crew injury. Getty Oil Company's Wilmington Getty and New York Getty also won top honors, the two ships steaming a total of 21 years with perfect personnel safety records.

For the fourth consecutive year, ships of the Military Sealift Command qualified in the Devlin Awards program, open to the Command's civilian-manned vessels. Two-year awards for the USNS *Atakapa*, Range Sentinel and De Steiguer were presented to the Commander of MSC, Navy Rear Adm. **Sam H. Moore**.

In the NSC Marine Section Safety Contest, first place plaques are given in four areas: Tanker, Dry Cargo-Passenger Vessels, Stevedoring, and Shipbuilding and Repair Divisions.

First place plaque winner in the Tanker Divisions was Getty Oil Company (Eastern Operations-Marine), which had the lowest fleet injury frequency rate for the previous year in competition with other company fleets on all seacoasts. Texaco was runner-up in that division.

In the Dry Cargo and Passenger Vessel Division, a first place plaque was presented to the Ford Motor Company's Marine Department, Dearborn, Mich., which won in the Great Lakes Straight Deck Category. In addition, Huron Cement Co., Detroit, won first place recognition in the Great Lakes' "Self Unloader" Cargo Ship Category.

The U.S. Naval Ship Repair Facility in Yokosuka, Japan, won a first place plaque in the U.S. Government Shipbuilding and Repair Division. A second place certificate in that Division went to the U.S. Naval Ship Repair Yard, Subic Bay (the Philippines).

A first place plaque went to Hilo (Hawaii) Transportation and Terminal Co. in the Stevedoring Division's General Cargo Category.

In NSC's Harbor Equipment Division (dredging vessels, tugs, barges, etc.), first place recognition went to the Corps of Engineers' Missouri River Division, Omaha, Neb.

The National Safety Council also honored the U.S. towing industry. First place plaques were presented by Admiral **Gracey** to Texaco's Marine Department, Port Arthur, Texas; Exxon Company, USA's Marine Department, Baytown, Texas, and Western Transportation Co., Portland, Ore. A second place certificate in the towing contest also went to Exxon Company, USA's Marine Department in Houston, Texas.

Special towing awards were also given for perfect safety records (no personnel injuries in 1976) to Boston Tow Boat Company, Livingston Shipbuilding Company, Orange, Texas, Mobile River Sawmill Division, Mt. Vernon, Ala., and Exxon Company, U.S.A., Everett, Mass.

In a joint statement, Messrs. **Walker** and **May** said: "We are well aware of certain unfortunate maritime tragedies that made headlines this year. However, successful U.S. maritime safety programs may not be making the headlines but are having a significant impact in this country. We are well into a national program to make our industry safer and healthier for every man or woman who goes to sea for a living or works shoreside.

"The Awards we are presenting today," they continued, "represent the hard and dedicated work of U.S. maritime Safety Directors who, backed by the dedication of topside shipping executives, are conducting far-reaching marine safety cam-

paigns, in cooperation with the National Safety Council, that have led to safer ships, safer shipyards and safer working conditions in the harbors and on the docks."

As to "safer Ships," the NSC and Devlin Awards winners are testimonials to this. The 11 U.S.-flag organizations and the number of Devlin award-winning ships from each include The Cleveland-Cliffs Iron Company (1); Columbia Transportation Division-Oglebay Norton Company (3); Delta Steamship Lines, Inc. (1); Getty Oil Company (4); International Ocean Transportation Corp. (2); Lykes Bros. Steamship Co., Inc. (3); Military Sealift Command (3); The Ohio River Company (1); Standard Oil Company (Indiana) (2); Texaco Inc. (6), and United States Lines, Inc. (4).

Henry Olson Joins Morris Guralnick Staff



Henry A. Olson

Morris Guralnick Associates, Inc., naval architects and engineers, 550 Kearney Street, San Francisco, Calif. 94108, have announced that **Henry A. Olson** has joined the staff in the position of project manager. MGA is one of the largest private offices of naval architects in the West. Each major project is assigned a manager whose duties include assuring the timely delivery and accuracy of work packages.

Mr. **Olson** joins the MGA staff after spending some 10 years with American President Lines. Among his duties at APL, Mr. **Olson** was project naval architect for the new Pacesetter-class of container-ships. Mr. **Olson** had charge of the development of this class from concept, through preliminary design stages, construction, delivery, and post delivery guarantee work.

Prior to assuming his duties at APL, Mr. **Olson** joined the United States Coast Guard upon graduating from school, and spent over three years with that organization both ashore and at sea. He was commissioned a lieutenant in the Coast Guard Reserve.

Mr. **Olson** has a Bachelor of Science degree in naval architecture and marine engineering from the Webb Institute of Naval Architecture. He holds memberships in The Society of Naval Architects and Marine Engineers and the American Society of Naval Engineers.

Howard Named Marketing Manager For G.E. Credit Leasing Component



Nathan M. Howard

Nathan M. (Bob) Howard has been appointed marketing manager for the Leasing & Industrial Loan Financing component of the General Electric Credit Corporation, 260 Long Ridge Road, Stamford, Conn. 06904.

In his new post, Mr. Howard is responsible for developing business for an operation that already has some \$3 billion in transportation and industrial equipment financed or on lease, including more than a dozen oceangoing tankers, more than 9,000 railway box cars, and a fleet of commercial jet airliners.

Mr. Howard previously was manager of industrial sales for the Commercial Loan Financing operation. He replaces David DuVernay, who left the corporation, a wholly owned subsidiary of General Electric Company which is a leader in commercial, industrial and mobile home financing.

A native of Fort Scott, Kan., Mr. Howard graduated with a degree in business administration from the University of Kansas in 1939. The same year he joined General Electric Company on its Financial Management Program, and held a wide variety of management positions prior to joining GE Credit in 1965 as credit manager for the Commercial & Industrial Department.

APL Announces Management Changes

The Natomas Company of San Francisco, Calif., announced a management reorganization of its subsidiary, the American President Lines, in which Dorman L. Commons, Natomas president and chief executive officer, has been named chairman and chief executive officer of the ocean-cargo carrier.

In addition, Natomas said that one of its senior vice presidents, W.B. Seaton, would act as interim president of the shipping line.

Mr. Seaton replaces Norman Scott, formerly president and chief executive officer, who will continue to work with the ship line's management as a consultant.

Natomas, which has other interests in petroleum and real estate, owns a 54-percent interest in American President.

Marine/Offshore Rules And Regulations Topics Of Seminar

Representatives from major classification societies and Federal agencies will review current and proposed rules and regulations related to marine/offshore operations at a seminar in Houston, Texas, September 15-16, 1977.

The two-day seminar is sponsored by the Center for Marine Resources at Texas A&M University and the West Gulf Section of The Society of Naval Architects and Marine Engineers.

Participants will review the establishment of technical regulations and rules, how they are to be enforced, and how various agencies and classification societies work together to establish

rules and regulations to meet future industry requirements.

Dewayne Hollin, regional representative for Texas A&M's Center for Marine Resources, is conference coordinator.

Registration fee for the seminar is \$20. For further information, contact Dewayne Hollin, 1200 South Post Oak Road, Suite 422, Houston, Texas 77056.

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CORDOBOND REPAIR KITS CONTAIN ALL THE COMPONENTS AND ACCESSORIES FOR MAKING EMERGENCY REPAIRS AT SEA

Packed in sturdy Navy type refillable metal containers.

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MARYLAND—Baltimore
Tate Temco, Inc.
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Southeastern Supply Co., Inc.
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Texas Marine & Industrial Supply Co.
WASHINGTON—Seattle
May & Smith Company
BELGIUM—Antwerp
Verfaillie & Elsig SPRL
CANADA—Halifax
Hubeva Marine Plastics, Halifax
FLORIDA—Miami
Seastores Wholesale Co.

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Seaworthy Appoints William L. McCarthy

The appointment of **William L. McCarthy** as senior marine project engineer has been announced by **David A. O'Neil**, president of Seaworthy Engine Systems, Inc. Seaworthy is engaged in engineering consulting for marine propulsion, fuel optimization and control systems for marine gas

turbine, diesel and steam powerplants.

In his new capacity, **Mr. McCarthy** will be responsible for engineering development and support for marine powerplant applications and installations, as well as specializing in marine steam powerplant performance monitoring techniques and systems for rated and reduced power operation.

Mr. McCarthy is a 1969 graduate of the U.S. Merchant Marine Academy and received his M.S. degree in marine science/ocean engineering from Long Island University in 1976.

Prior to joining Seaworthy, **Mr. McCarthy** sailed as a licensed engineering officer in the U.S. merchant marine, served as a consultant to the National Maritime Research Center at Kings Point,

N.Y., and most recently was employed as a marine engineer by Ocean Environmental Systems, Ltd. of Larchmont, N.Y., where he was responsible for the development, evaluation and review of machinery monitoring and maintenance procedures.



William L. McCarthy

Seaworthy Engine Systems provides unique engineering and technical services to the marine industry in the steam, diesel and gas turbine propulsion systems, fuel systems management and vessel operation areas. Seaworthy's customers include shipowners and operators, engine manufacturers, as well as the U.S. Government.

Seaworthy's offices are located at 73 Main Street in Essex, Conn. 06426.

Deep Penetration Gas Freeing Fan Introduced By Dasic

Dasic International has introduced a completely new, portable, deep penetration/extraction water driven gas freeing fan. Designed and developed by Dasic International at their works at Romsey, Hampshire, U.K., the Jetfan 125 has been tried and tested by four of the leading oil companies.

Considerable basic research into rotor/stator design has resulted in a high performance, dual purpose, compact unit. Designed for ease of conversion from deep penetration to extraction, the water driven Jetfan 125 weighs only 95 pounds and is truly portable. Standing only 26-inches high by 19-inches wide, it can be installed, moved, and operated by just one man using the simple, functional, fan trolley. The air displacement from the deep penetration unit at 150 psi is approximately 12,500 cubic tons per hour. Conversion to extraction unit takes one man only 10 minutes.

The unit is designed to fit a standard 12½-inch-diameter stud bolt deck opening, but by using coaming adaptor sets the unit can be fitted to any type of deck opening. The robust construction and simple design of the Jetfan 125 ensures it is virtually maintenance free, all unit parts being non-corrodible bronze, stainless steel or epoxide coated aluminum alloy.

For additional information, write to **Robert Auguston**, Dasic International Corp., 1035 Southeast Ninth Street, Portland, Ore. 97214.



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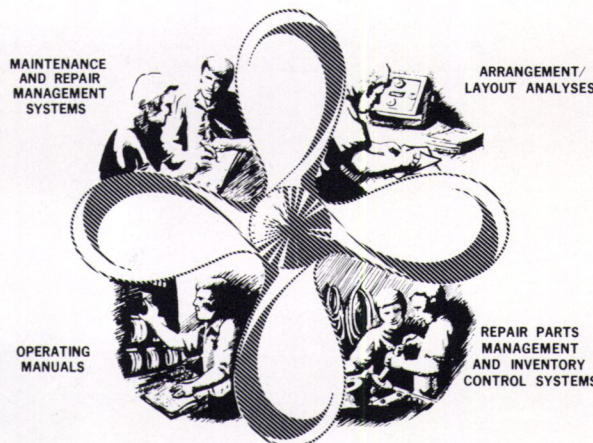
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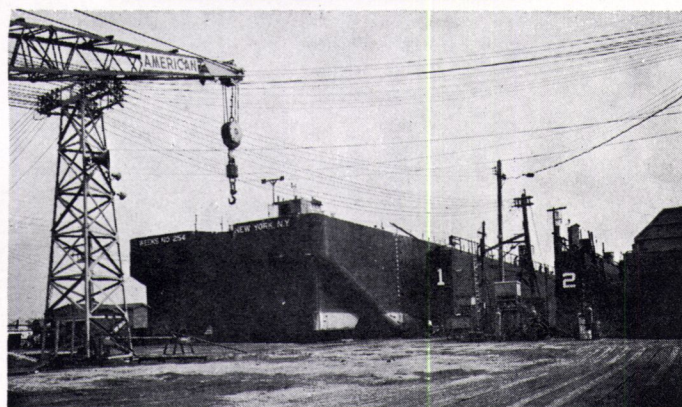
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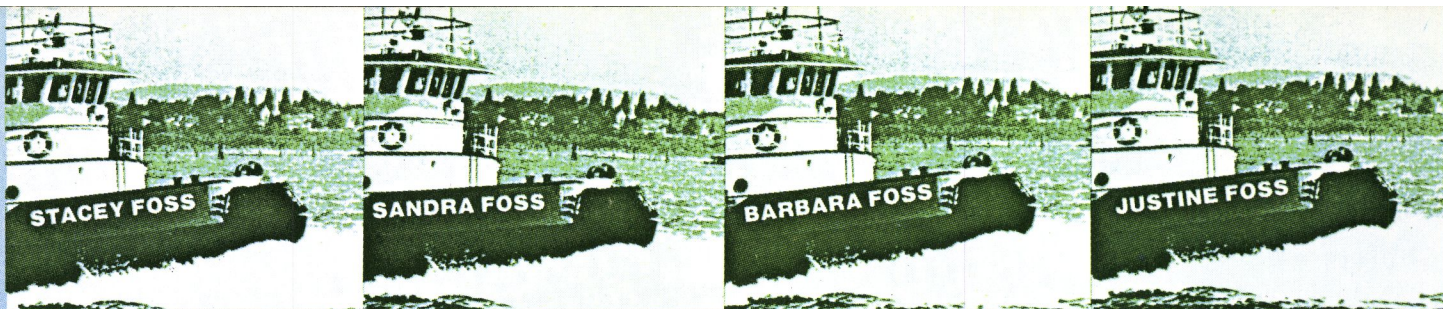
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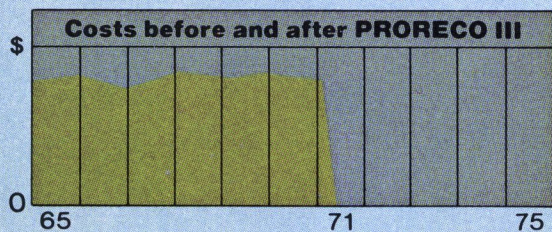
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4 more Foss towboats cut weather deck maintenance costs to zero. Here's how.

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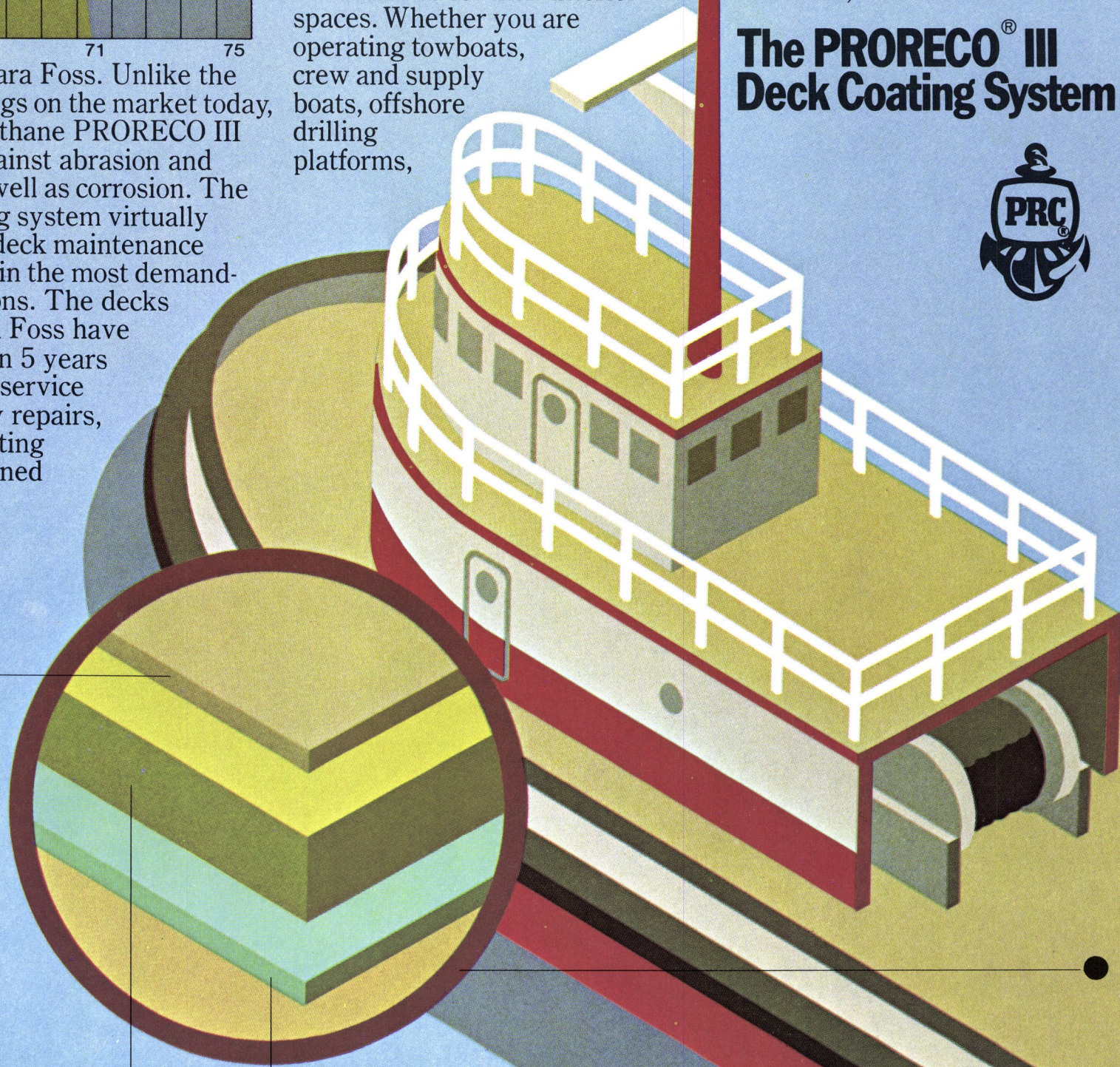


working Clara Foss. Unlike the paint coatings on the market today, the polyurethane PRORECO III protects against abrasion and impact, as well as corrosion. The PRC coating system virtually eliminates deck maintenance costs, even in the most demanding conditions. The decks of the Clara Foss have already seen 5 years of constant service without any repairs, and the coating has maintained

original integrity and serviceability. Because of this exceptional performance, the four newest Foss vessels, Stacey, Sandra, Barbara, and Justine, have all had PRORECO III applied to weather decks. PRC PRORECO I has also been utilized for their interior spaces. Whether you are operating towboats, crew and supply boats, offshore drilling platforms,

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Ocean Engineering Under Arctic Conditions Is Subject Of Conference

The Canadian province of St. John's, Newfoundland, will be the site of the 4th International Conference on Port and Ocean Engineering Under Arctic Conditions, to be held September 26-30.

The POAC 77 Conference will cover latest developments on op-

erating in Arctic waters, including oceanography, hydrocarbon exploration and development, seabed and subbottom science, sea ice, marine transport and logistics, harbors and terminals, offshore structures, and harvesting and management fisheries.

Distinguished international scientists to present papers include Japan's Dr. Kiyoshi Horikawa from the University of Tokyo; West Germany's Dr. J. Schwarz,

Hamburg Shipbuilding Research Institute; the Netherlands' Ing. J.G. de Witt, Deputy Director of the Netherlands Institute for Fishery Investigations; Canada's K.R. Croasdale, Imperial Oil; and America's Dr. W.D. Hibler III, Cold Regions Research and Engineering Laboratory, Hanover, N.H.

Commenting on the POAC 77 Conference, John Lundrigan, Newfoundland's Minister of Industrial

Development, said: "With conservative estimates that potential reserves of 40 trillion cubic feet of natural gas and 3.5 billion barrels of oil may lie off our coasts and the increasing stature of our Centre for Cold Ocean Resources Engineering and Newfoundland Oceans Research and Development Corporation, we are delighted indeed that St. John's has been selected as the site for this very important conference."

The registration fee of \$150 (Canadian funds) should be made payable to POAC 77 Memorial University and should be mailed to Secretary, POAC 77, Faculty of Engineering and Applied Science, Memorial University of Newfoundland, St. John's, Newfoundland, Canada A1C 5S7.

Lake Shore, Inc. Opens Houston, Texas Office—G. Curtis Gibby Named

Lake Shore, Inc., Iron Mountain/Kingsford, Mich., prominent manufacturer of marine cranes, winches, windlasses and mooring systems, has opened a Gulf Coast sales office to expand its services to the offshore oil industry. The facility is located at Lake View of Cypress Station, 400 FM 1960 West, Houston, Texas 77090, according to an announcement made by E.F. Coughlin, vice president, Marine.

In his announcement, Mr. Coughlin stated: "The continuing search for oil and other mineral resources under the sea presents a broadening market for Lake Shore marine products. Today, there is an increasing need for Lake Shore cranes, winches, windlasses, and mooring systems in the offshore industry. By locating an office in Houston, we are endeavoring to develop and expand our services to the offshore industry in the Gulf Coast area."

G. Curtis Gibby, who has been named manager-offshore sales, will be in charge of the Gulf Coast operation, according to Mr. Coughlin, and will be transferred to Houston from the company's headquarters office at Kingsford, Mich.

A native of Winthrop, Mass., and a graduate of the U.S. Naval Academy, Annapolis, Md., Mr. Gibby joined Lake Shore in 1974 as a technical sales coordinator in the Marine Division. For the past several years, he has been active in the marine application engineering effort in the Great Lakes area and has had extensive experience in mooring applications. Recently, Mr. Gibby has been involved in the development of a traction towing machine for U.S. Navy tugs.

Mr. Gibby, who served in the Navy for 10 years, saw combat duty in Vietnam, where he commanded an underwater demolitions platoon.

ROTATABLE NOZZLE THRUSTERS

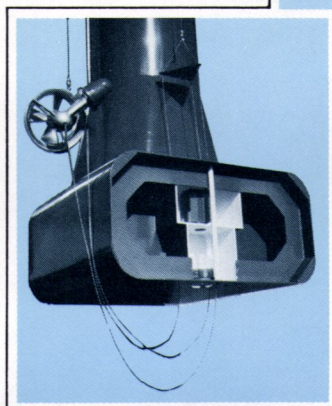
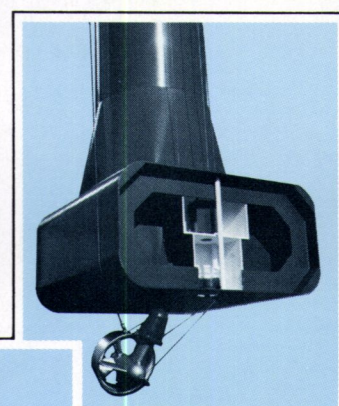
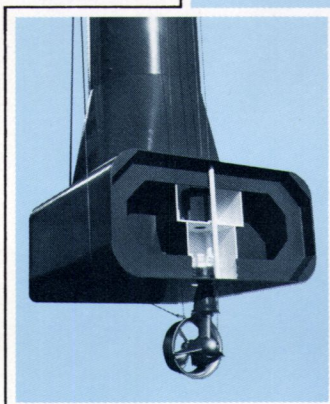
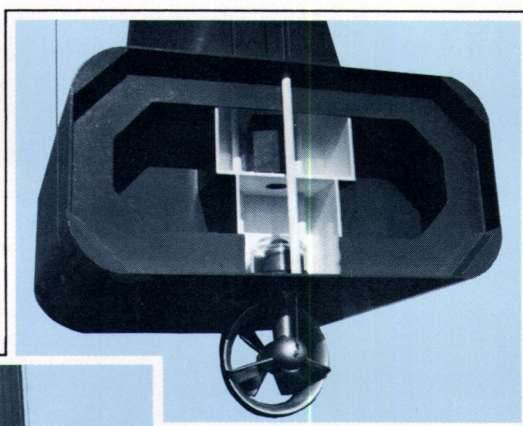
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Features include a nozzle designed for maximum bollard pull, hydraulic azimuth control, mechanical brakes to hold thruster position if oil pressure is lost, blade seals tested at a water pressure corresponding to 130 feet submergence, gears designed for unlimited life, and bearings selected to provide a minimum B-10 life of 25,000 hours at full load.

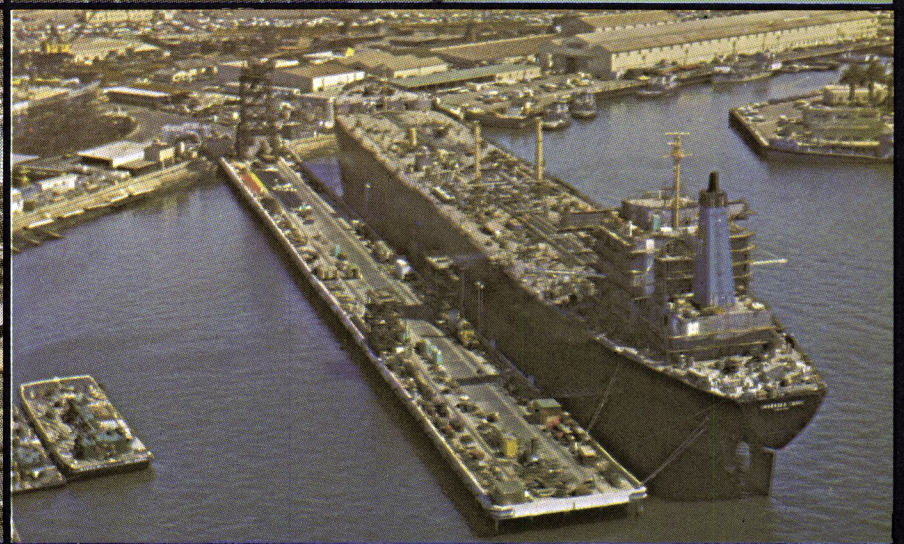
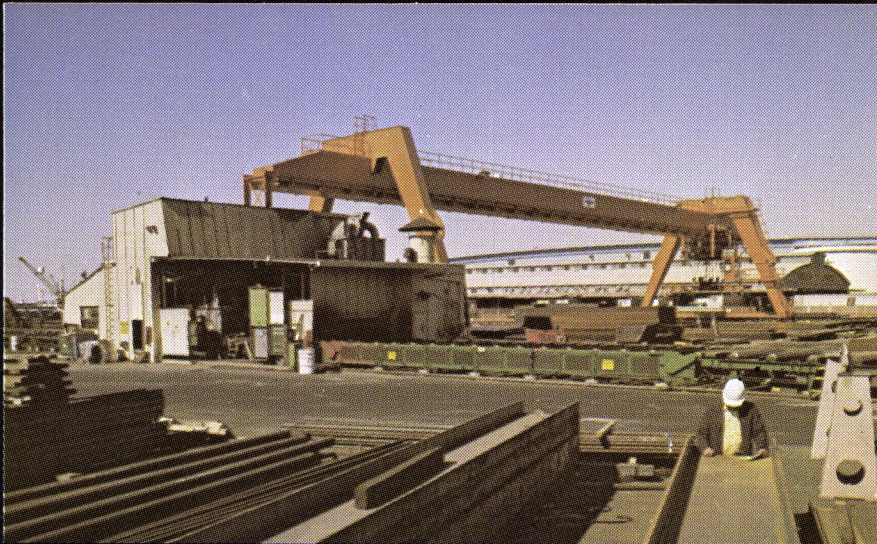


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Evergreen Handt Names Two In Operations

Evergreen Handt Corp., general agents for Evergreen Line's East Coast/Far East container service, has announced two operations appointments.

J. Ernest Celosse has been appointed assistant vice president, operations, and **Capt. H.H. Liao**, operations manager of Evergreen Handt Corp., according to **Svend Hansen Jr.**, president of Evergreen Handt.

Mr. Celosse, who previously served as operations manager, has been in the steamship business for 11 years. He has been with Evergreen since its inception in 1974, and was active in establishing the Evergreen Handt/Evergreen Marine Corp. service.

A native of Indonesia, Mr. Celosse attended the Netherlands Maritime Academy.

Captain Liao previously served as captain of the M/V Ever Spring, Evergreen Line's first container vessel. He joined the New York office last August, after serving Evergreen at sea for five years.

Captain Liao attended the Taiwan Maritime College.

Evergreen Line operates five new container vessels in its East Coast service from the ports of New York, Charleston, and Baltimore to the Far East via Pusan, Korea; Keelung and Kaohsiung, Taiwan; and Hong Kong.

Int'l Chamber Publishes Bridge Procedures Guide

The International Chamber of Shipping, in an appeal to the world shipping community to cut down on marine pollution and save lives at sea, has published a new booklet to assist in the attainment of these goals.

Called the Bridge Procedures Guide, it is designed to provide masters and navigating officers of vessels of all flags with a description of bridge procedures widely recognized as good international practice.

The simply written publication includes both routine and emergency check lists ranging from procedures for the embarkation and disembarkation of pilots to action to be taken in case of "man overboard." These check lists can be removed from the Guide and mounted on the bridge bulkhead for ready reference, according to **H.T. Beazley**, chairman of the London, England-based organization representing worldwide shipowner associations.

In announcing the merits of the new Guide, Mr. Beazley said: "This Guide has been prepared by mariners for mariners. It concentrates mainly on basic procedures and measures applicable to all classes of vessels, and is aimed to enhance the overall safety of navigation. It is my firm view that

it has been the neglect of such procedures that have been responsible for so many navigational casualties, causing not only pollution but loss of life. Such tragedies could and should have been avoided.

Mr. Beazley noted that an "effective bridge organization" is the main key to the safety of navigation. It is the duty of shipowners worldwide to insure that its importance is recognized by

their masters, he said. Furthermore, he added, the Guide should be equally valuable to deepsea fishing vessels.

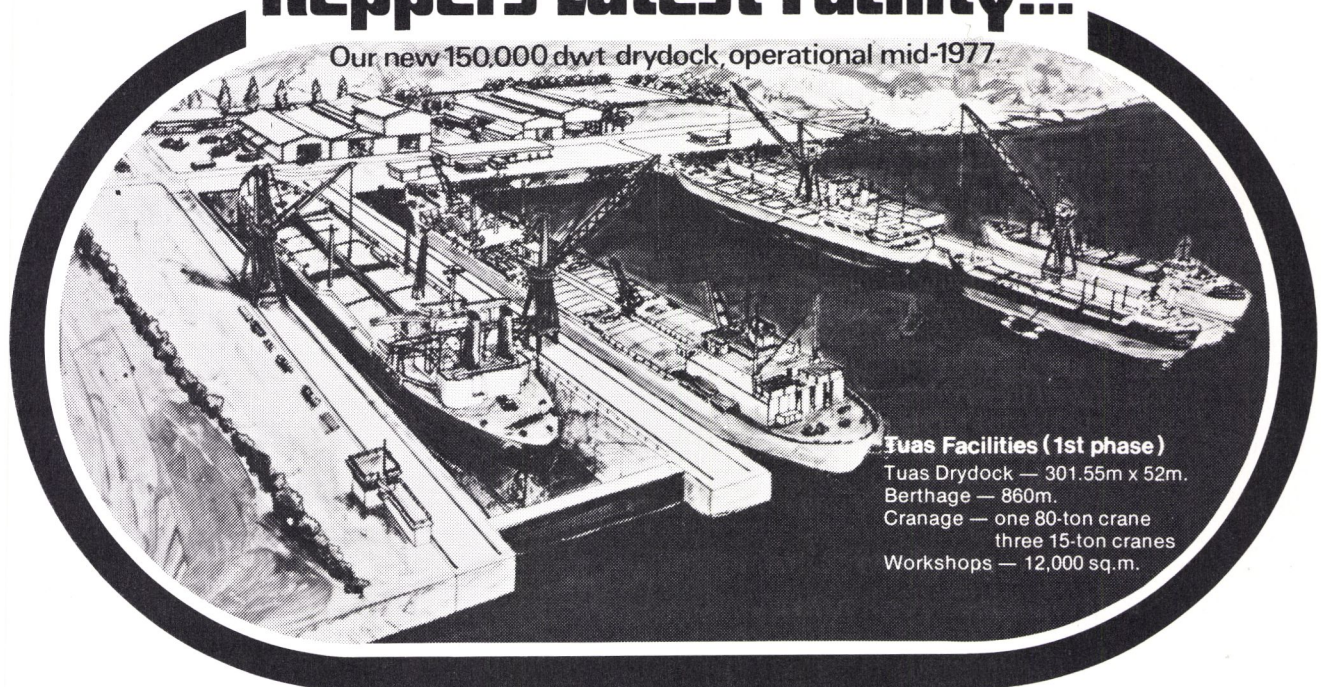
"I am convinced that if maximum international support is given to this Guide, an early and significant reduction in navigational casualties can be achieved," he concluded. "This would be greatly in the interest of safety of life at sea and the protection of our marine environment. I

therefore appeal to shipowners of all flags to circulate this Guide widely and encourage compliance with its provisions within their own fleets."

A single copy costing 4¼ pounds (1 pound equal to roughly \$1.75 in U.S. currency) can be purchased from Messrs. Witherby and Co., Ltd., 32-36 Aylesbury Street, London, EC1R OET, England, with multiple copies available at a lower per copy cost.

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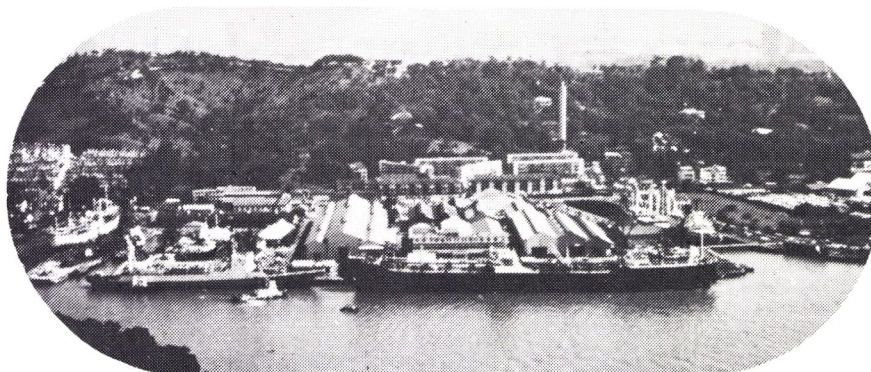
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Twin City Barge Entering Coal Business

Twin City Barge & Towing Co., St. Paul, Minn., has announced it is entering the coal business by acquiring United Coal Sales Co., Minneapolis, in a transaction valued at \$3.75 million.

John W. Lambert, president and chairman of the board of Twin City Barge, said the acquisition

will be accomplished through a combination of common stock, cash and subordinated notes. He added that 41,667 shares of Twin City Barge common stock will be issued as part of the purchase arrangement.

Twin City Barge currently has 584,901 shares of common stock outstanding.

Mr. Lambert said that United Coal Sales' revenues are expected

to exceed \$10.0 million for the 12 months ending December 31, 1977. He added that the firm's after-tax net income for the five months ended May 31, 1977, was approximately \$190,000 on sales of \$4.1 million.

United Coal Sales, privately held, with offices in the Foshay Tower in Minneapolis, is engaged in the development and marketing of coal to industrial firms and

electrical utilities. It also operates a coal loading dock on the Green River at Rochester, Ky., which serves both United Coal and other coal companies.



John W. Lambert

President and chief executive officer of United Coal is Thomas W. Talbert, who has devoted more than 50 years to nearly every phase of coal mining, transportation and marketing. Mr. Talbert will continue to direct United Coal's operations as a wholly owned subsidiary of Twin City Barge.

"Considering the world's looming fuel crisis, we at Twin City Barge are certain that coal will play a constantly increasing role in fulfilling our nation's energy needs," Mr. Lambert commented. "We therefore expect the acquisition of United Coal to complement our barging and terminal operations and to increase earnings."

In another development, Mr. Lambert announced that Twin City Shipyard, Inc., a wholly owned subsidiary of Twin City Barge, has received an order for the construction of 112 open hopper barges. He said the \$22-million order is subject to required approvals.

Twin City Barge is a diversified company manufacturing barges, towboats and other types of marine equipment. It also maintains terminal storage facilities and operates as a carrier of dry and liquid bulk commodities. Its operations extend from the Twin Cities and Chicago throughout the inland river system of the United States.

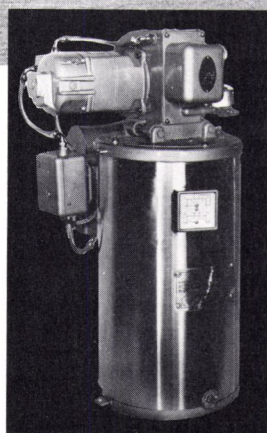
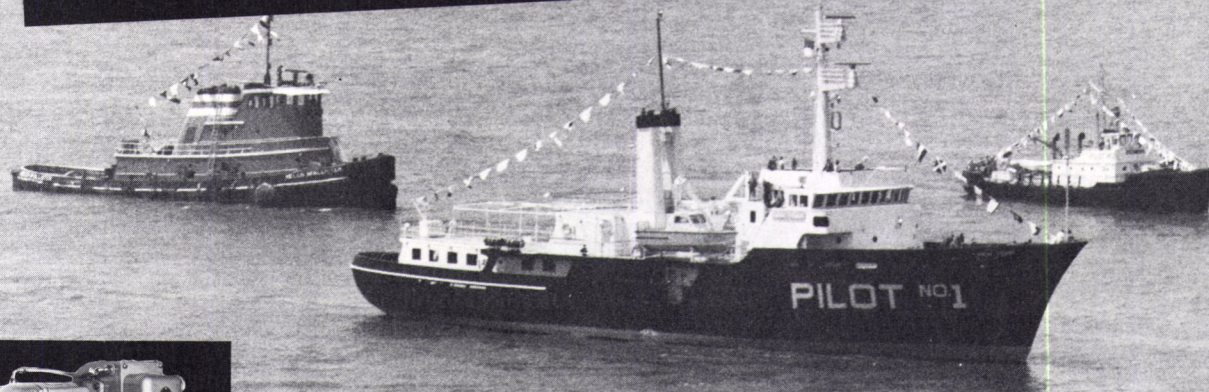
Brochure Issued On Oil Pollution Control

Peterson Maritime Services, Inc., a company involved in ship cleaning and in oil pollution control and cleanup, has issued a brochure covering their capabilities in the latter field.

Peterson, with offices in New Orleans, La., Mobile, Ala., and Houston, Texas, is one of the leading companies engaged in the recovery of oil or chemical spills.

For a copy of the brochure, write to Jim Latiolais, Peterson Maritime Services, Inc., 2431 Decatur Street, New Orleans, La. 70117.

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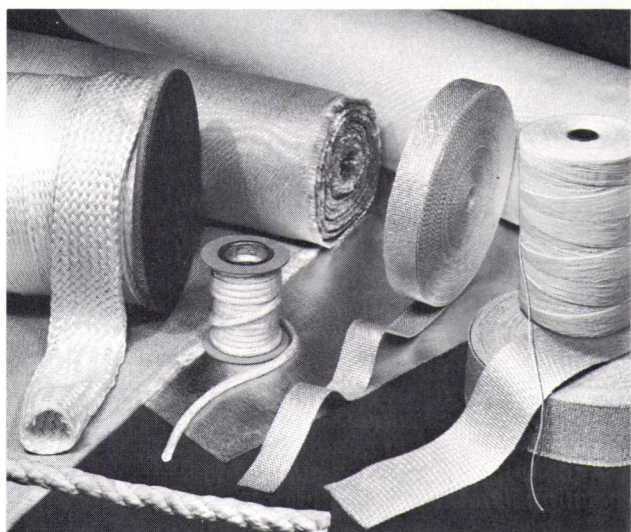
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Crowley Maritime Corp. Orders Two 580-Foot Triple-Deck Barges

Crowley Maritime Corporation has ordered construction of two 580-foot, triple-deck barges for service in its Caribbean Division, according to a recent announcement by **Leo L. Collar**, president of Crowley's Offshore Group, San Francisco, Calif.

These vessels will be the largest roll-on/roll-off barges in the world, measuring 580 feet by 105 feet by 56 feet. Each barge will have a capacity of 380 forty-foot trailers.

Both barges will join five other 400-foot by 100-foot, double-deck barges already in service for Trailer Marine Transport Corporation, which provides service from Jacksonville and Miami, Fla., to Puerto Rico, with extended service to the Virgin Islands, Leeward and Windwards, and the Dominican Republic. All TMT barges are equipped with a fifth-wheel device that automatically locks trailers securely to the deck as they are driven onto the barge.

"The addition of these two barges will mark a new era in roll-on/roll-off transportation service for the Caribbean," said **Mr. Collar**. "We plan to continue using 9,000-hp tugs in the TMT service, and plans for construction of permanent tri-deck ramp systems are underway so that we will be able to continue our quick turnarounds."

The barges are being constructed in Portland, Ore., by the Marine and Rail Equipment Division of FMC Corporation. Delivery of the first barge is scheduled for mid-March 1978, and the second for mid-June 1978.

John Flipse Resigns From Deepsea Ventures

The resignation of **John E. Flipse**, chairman of the board and president of Deepsea Ventures, Inc., Gloucester Point, Va., has been announced. At the same time, the appointment of **Frank A. Lawrence** as acting president was announced.

Mr. Lawrence has been serving as the vice president and general manager of Indonesia Sun Oil Company, a unit of the Sun Company.

In commenting on the resignation of **Mr. Flipse**, the company noted there was mutual agreement to his action, which resulted from differences over policies and objectives of the ocean mining concern.

United States Steel Corporation, Union Miniere of Belgium and the Sun Company are the principal owners of Deepsea Ventures, Inc. At the present time, the company is actively pursuing a test deepsea mining program in the Pacific Ocean.

Central Gulf Promotes Smith And Ferguson

The president of Central Gulf Lines, New Orleans, La., has announced the promotion of two company executives.

Erik J. Johnsen said that **Louis O. Smith** has assumed the position of assistant vice president for personnel and administrative functions, and **Gary L. Ferguson**


has been named controller of the company.

A native of New Orleans, **Mr. Smith** was graduated from Soule Business College and attended Loyola University in New Orleans. He joined Central Gulf in 1959 as manager of vessel accounting, and since 1966 has served as controller and director of personnel and office administration.


Mr. Ferguson, born in Waukegan, Ill., obtained his Bachelor

of Science degree in accounting from Louisiana State University in Baton Rouge. He joined Central Gulf in 1968 as staff accountant, and was named assistant treasurer of the company in 1970. As controller, he will be responsible for the company's accounting functions.

Central Gulf, a U.S.-flag vessel owner and operator headquartered in New Orleans, is an affiliate of Trans Union Corporation.




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Modern Collision Avoidance System Subject Of Symposium

A ship can complete its voyage more safely and with fewer maneuvers if it is equipped with a modern collision avoidance system, according to experimenters at the U.S. Maritime Administration's Computer-Aided Operations Research Facility (CAORF). These findings were presented to government and industry authorities at a symposium held June 23 and 24 at the research facility in the National Maritime Research Center, Kings Point, N.Y.

Martin Pollack, senior research psychologist with Grumman Data Systems Corporation, which operates the facility, reported that ships using a collision avoidance system pass each other with a 33 percent larger safety margin than ships that depend on visual sightings or radar in the same cir-

cumstances. The report also showed that ships in high-density traffic which may be encountered in major ports could achieve almost the same degree of safety as in low-density traffic by using a collision avoidance system.

The experiments were conducted at CAORF, a computerized marine simulator designed, built and maintained by the Sperry Division of Sperry Rand for the U.S. Maritime Administration. The research simulator is located on the grounds of the U.S. Merchant Marine Academy. A Sperry collision avoidance system was used in the studies.

In the experiments, six ship officers from U.S. tankers handled the same sailing situations using visual, radar and computerized collision avoidance techniques. Each officer was observed under 30 test conditions involving meeting, crossing and overtaking other ships. The experiments showed that, in addi-

tion to achieving greater safety margins, the officers could navigate more efficiently and maintain the tight schedules they had been given as part of the experimental situation. Indications were that the collision avoidance system helped the officers judge situations earlier and more accurately, and they made fewer course corrections to maintain safe positions for their simulated ships.

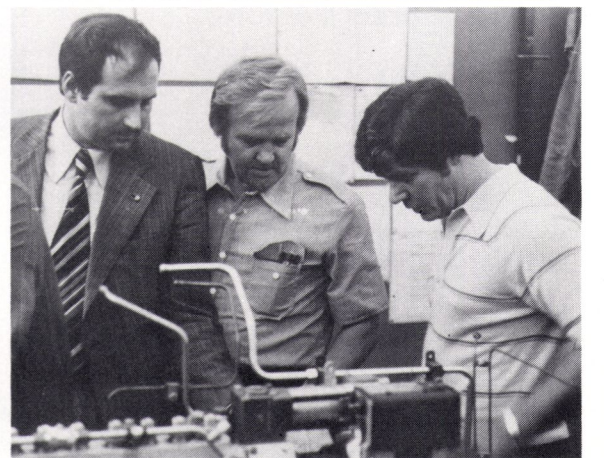


CAORF Symposium participants view the Control Center, where all variables of experiments are closely monitored. Situation displays inform the Control Center of the position of CAORF "own ship" in relation to other ships and geographical features of the area being navigated.

CAORF is a research simulator in which the Maritime Administration conducts experiments in ship operations and equipment functioning. It can duplicate many conditions such as darkness, fog, moonlight and other environmental factors. It will also duplicate the handling characteristics of all types of oceangoing ships.

The simulator projects computer-generated color images of ships, buoys, landmarks and other navigation information on giant screens surrounding a ship's bridge. The computer can create and move up to 40 ships at sea and in harbors, accurately reproducing their appearances and sailing characteristics. The crew members pilot their own vessel through the simulated traffic, operating with steering, navigation and communications equipment identical to that used at sea.

The collision avoidance system used in the experiments was furnished by Sperry Division's Marine Systems unit, Great Neck, N.Y. Sperry's Systems Management unit, also in Great Neck, built and maintains the simulator for the National Maritime Research Center.



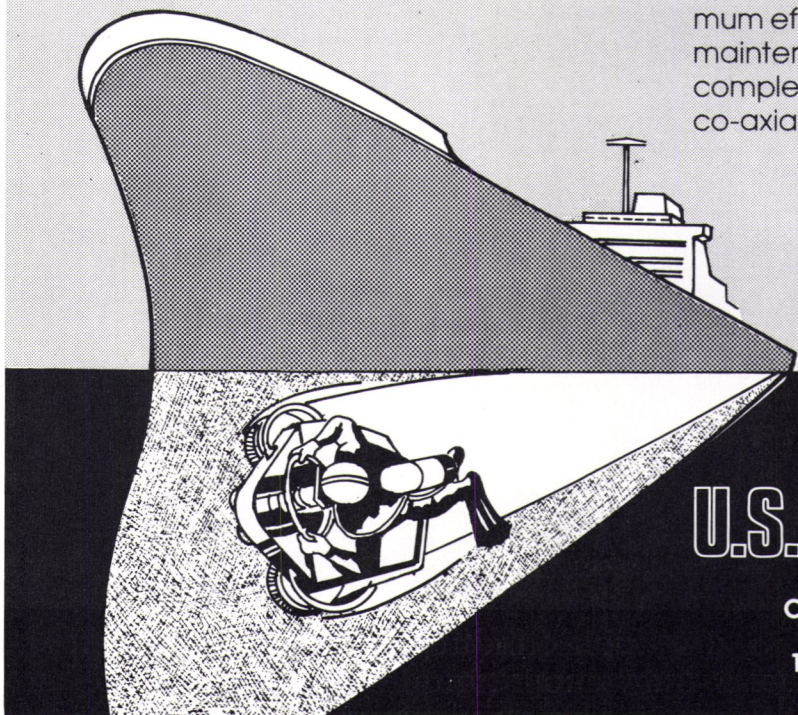
MTU DIESELS FOR SWIFTSIPS — Jerry L. Hoffpauir (center) of Swiftships, Inc., Morgan City, La., and Paul Haines Jr. (right) of Co-Mar Offshore Corporation, also Morgan City, recently toured the Motoren und Turbinen Union plant in Friedrichshafen, Germany. Shown with Mr. Hoffpauir and Mr. Haines is MTU official **Jorge Hartmann** (left). As a result of the tour, Swiftships purchased eight 12V331 MTU diesel engines. These engines, to be delivered in late 1977, will power four new Swiftships all-aluminum 122-foot crewboats. The vessels will have two engines each and a cruising speed of 26 knots.

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Stewart & Stevenson Deliver Three Crewboats To Italy

Stewart & Stevenson Services, Inc., Houston, Texas, has provided three unique crewboats for Impreso U Girola Estero, a joint venture of Italian firms. The Stewart & Stevenson vessels, built at Houston's Glendale Boat Works, have passenger capacity of 28 persons or a 4,200-pound payload. Speed of the crewboats, powered by two 300-horsepower Stewart & Stevenson DIESELJET engines, exceeds 30 mph. The Stewart & Stevenson powerplants are turbocharged and inter-cooled.

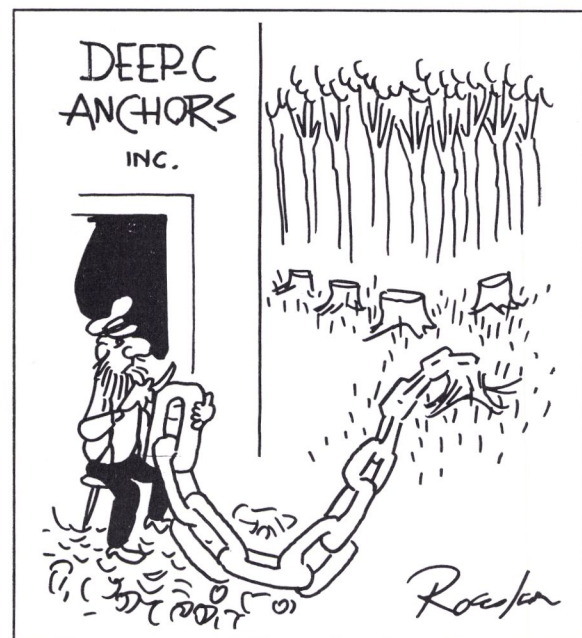


Shown above is Stewart & Stevenson's 6V53TI-DJ crewboat, recently built at Glendale Boat Works for a joint venture of Italian firms, Impreso U Girola Estero.

Stewart & Stevenson was brought into the project by the Italian firms to solve an unusual problem in construction of an inter-connecting freeway around the Port of Lagos. The freeway includes several bridges being built from island to island across several rivers. A major difficulty involved transportation for job foremen, roofmen, and suppliers. Using traditional land transportation vehicles, it took as much as two hours for crews and suppliers to reach some of the job sites. With Stewart & Stevenson's crewboat, that time has been reduced to under 30 minutes.

In all, three of the Stewart & Stevenson crewboats have been delivered to Impreso U Girola Estero at a total cost of \$225,000. The crewboats have an overall length of 31 feet 6 inches and a beam of 11 feet 6 inches. They feature an extremely stable design that provides high maneuverability even in shallow depths, operating efficiently in only two feet of water. The boats include complete acoustic insulation for both the engine room and the passenger compartment, skylights for the passenger compartment, and removable seats to provide a quick change from crew to cargo-carrying uses.

For complete information on Stewart & Stevenson vessels and worldwide services, write **Joseph Manning**, Stewart & Stevenson Services, Inc., 4516 Harrisburg Boulevard, Houston, Texas 77001.



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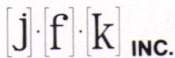
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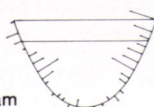
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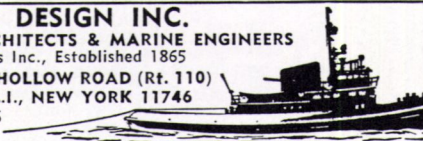
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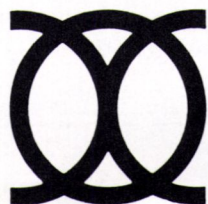
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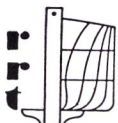
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Setenave Shipyard Acquires Rights To Use Kockums System

Setenave, the state-owned Portuguese shipyard, has acquired the right to use STEER-BEAR HULL, the computer-based system developed by Kockums. Now in use at several other large international shipyards, the system is intended as a reinforcement of the Portuguese yard's resources in the design and production fields. Kockums and Setenave have been cooperating for the last several years in a number of areas.

STEERBEAR HULL can be used for design of hull surfaces and components, for presentation of production information such as working drawings, and to generate punched tapes for numerical control of cutting machines. In brief, the system provides information, instructions and drawings ranging from the design work to detailed production data for a ship's hull.



Pictured at the conference in Malmo are (from left): Gordon Kinkaid, Sun Shipbuilding & Dry Dock Co., Chester, Pa.; William A. Doggart, Harland and Wolff Ltd., Belfast, Northern Ireland; Kai Holmgren, Kockums Computer Systems, Malmo, Sweden; Peter Claussen, Gotaverken Arendal, Goteborg, Sweden, and Eero Jarvinen, Rauma Repola OY, Rauma, Finland.

For Kockums Shipyard, where the system was developed, the use of STEERBEAR HULL has generated extensive economic benefits. The increased precision provided by the systems has been an important factor in the shipyard's high productivity.

A two-day conference recently held at the Kockums Yard in Malmo, Sweden, was attended by more than 40 representatives from shipyards throughout the world that are now using STEERBEAR. The primary aims of the conference were to exchange experience, present new projects, and discuss future development in the field of shipbuilding.



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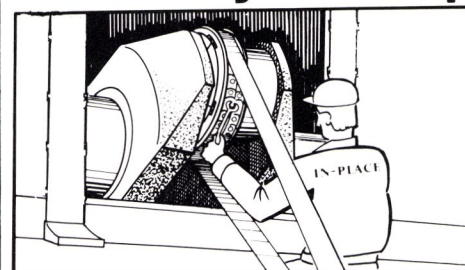
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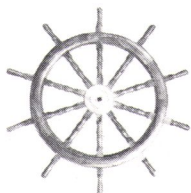
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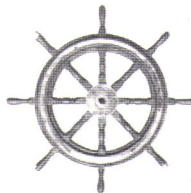
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Engelhard Industries, Chloropac Systems, 2655 U.S. Rt. 22, Union,
N.J. 07083

LaMere Industries, Inc., (Marland Environmental Services and
Clear Water, Inc.) 227 N. Main Street, Walworth, WI 53184
Mapco, 1437 So. Boulder Ave., Tulsa, Okla. 74119
Marine Moisture Control Co., Inc., 449 Sheridan Blvd., Inwood,
L.I., N.Y. 11696

Microphor, Inc., P.O. Box 490, Willits, CA 95490
Red Fox Industries, P.O. Drawer 640, New Iberia, La. 70560
Sigma Treatment Systems, 603 Dean Street, Brooklyn, N.Y. 11238

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J.W. Berg, S-430 90 Ockera, Gothenburg, Sweden
Bird Johnson Company, 110 Norfolk St., Walpole, Mass. 02081
Coalgate Propellers, 1601 Fairview Ave. East, Seattle, Wash. 98102
Escher Wyss GmbH, P.O. Box 798, Ravensburg, Germany
Federal Propellers, 1501 Buchanan Ave. S.W., Grand Rapids, Mich.
49502

Propulsion Systems Inc., 21213 76th Ave. South, Kent,
Wash. 98031
Voith Schneider—U.S. Agent: Knupp International, Inc., 550
Mamaroneck Ave., Harrison, N.Y. 10528

PROPULSION—Marine

Combustion Engineering, Inc., Windsor, Connecticut 06095
Delaval Turbine Inc., Turbine Div., Trenton, N.J. 08602
In-Place Machining Co., 1929 N. Buffman St., Milwaukee,
WI 53212

Maritime Industries Ltd., 6307 Laurel St., Burnaby, B.C., Canada
V5B 3B3
Port Electric Turbine Div., 155-157 Perry St., New York, N.Y. 10014
Schottel of America, Inc., 21 N.W. South River Dr., Miami,
Fla. 33128

Stal-Laval, Inc., 400 Executive Blvd., Elmsford, N.Y. 10523

PUMPS—Repairs—Drives

Delaval Turbine Inc., IMO Pump Division, P.O. Box 321, Trenton,
N.J. 08602
FMC Corporation, Pump Division, 326 So. Dean Street, Englewood,
N.J. 07631

Jim's Pump Repair Co., 22-09 126 Street, College Point, N.Y. 11356
Penco Division/Hudson Engineering Co., 1114 Clinton St., Hoboken,
N.J. 07030

Terry Corporation, P.O. Box 1200, Windsor, CT 06101
Worthington Pump Inc., P.O. Box 1250, Mountainside, N.J. 07092

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CM American, Division Columbus McKinnon Corp., P.O. Box 74,
McKees Rocks, Pa. 15136

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Superior Switchboard & Devices, Division of Union Metal Manu-
facturing Company, P.O. Box 590, Canton, Ohio 44701
D. Van Beest En Zn B.V., P.O. Box 57, Merwestraat 1-5,
Slidrecht, The Netherlands

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Jackson Rope Corporation, Ninth & Oley Streets, Reading, Pa. 19604
Samson Ocean Systems, Inc., 99 High Street, Boston, Mass. 02110
The Cordage Group, Columbian Drive, Auburn, N.Y. 13021
Wall Rope Works, Inc., Beverly, N. J. 08010

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Hose McCann Telephone Co., Inc., 524 W. 23rd St., N.Y. 10011
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American Ship Dismantlers, Inc., Division of Schnitzer Industries,
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The Boston Metals Co., 313 E. Baltimore St., Baltimore, Md. 21202
General Metals of Tacoma, Inc., 1902 Marine View Dr., Tacoma,
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National Metal & Steel Corp., 691 New Dock St., Terminal Island,
Cal. 90731
Zidell Explorations, Inc., 3121 S. W. Moody St., Portland, Ore. 97201

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Hughes Bros., Inc., 17 Battery Pl., New York, N.Y. 10004
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St., Houston, Texas 77012

Carrington Slipways Pty. Ltd., Old Punt Road, Tomago, N.S.W.,
Australia 2322
Conrad Industries, P.O. Box 790, Morgan City, La. 70380
Curacao Drydock Co., Inc., P.O. Box 153, Willemstad, Curacao,
Netherlands Antilles

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Dravo Steelship Corp., R.4, Box 167, Pine Bluff, Ark. 71602
Economic Development Industrial Corp. of Boston, 60 Congress St.,
Boston, Mass. 02109

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Ave., Portland, Oregon 97208

General Dynamics, Quincy Division, Quincy, Mass. 02169
Gladding-Hearn Shipbuilding Corporation, 1 Riverside Avenue,
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Halter Marine Services, Inc., Route 6, Box 287H, New Orleans,
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Harland & Wolff Shipbuilding & Engineering, Queens Island,
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Havre de Grace, Havre de Grace, Md.

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Hongkong United Dockyards Ltd., Kowloon Docks, Hong Kong
Hyundai Mipo Dockyard Co., Ltd., 456 Cheonha-dong, Ulsan, Korea
Hyundai Shipbuilding & Heavy Industries Co., Ltd., 5 World
Trade Center, Suite 679, New York, N.Y. 10048

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Kawasaki Heavy Industries, Ltd., Kawasaki Kisen Kaisha, Ltd.,
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Marathon LeTourneau Offshore Company, 1700 Marathon Building,
600 Jefferson, Houston, Texas 77002
Marathon LeTourneau Gulf Marine Division, P.O. Box 3189, Browns-
ville, Texas 77520

Marathon LeTourneau Marine Division, LeTourneau Rural Station,
Vicksburg, Mississippi 39180
Marathon LeTourneau Offshore Pte., Ltd., P.O. Box 83, Taman Ju-
rong Post Office, Singapore 22, Singapore

Marathon Shipbuilding Company, P.O. Box 870, Vicksburg, Miss.
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bartonshire, G81-1YB, Scotland

Marinette Marine, Ely Street, Marinette, WI 54143
Mattson Shipyard Co., Inc., P.O. Box 428, Cohoes, New York 12047
J. Ray McDermott & Co., Inc., P.O. Box 60035, New Orleans,
LA 70160

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Misener Industries, Inc., 5353 Tyson Avenue, P. O. Box 13625,
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611 East Marceau, St. Louis, Mo. 63111

Sasebo Heavy Industries Co., Ltd., New Ohtemachi Bldg., Chiyoda-
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Sembawang Shipyard (Pte) Ltd., P.O. Box 3, Sembawang, P.O.
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Sumitomo Heavy Industries Ltd., 2-1 Ohtemachi 2-chome,
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Chemin De La Madrague, 13345 Marseille—Cedex 3, France
Todd Shipyards Corp., 1 State St. Plaza, New York, N.Y. 10004
Union Dry Dock & Repair Co., Foot of Pershing Road, Weehawken,
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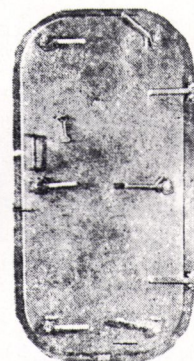
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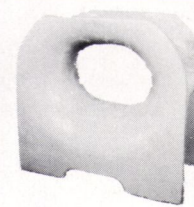
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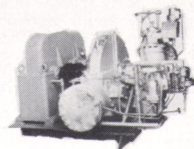
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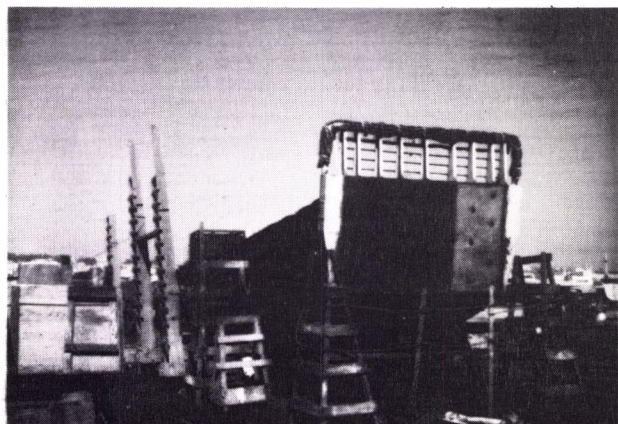
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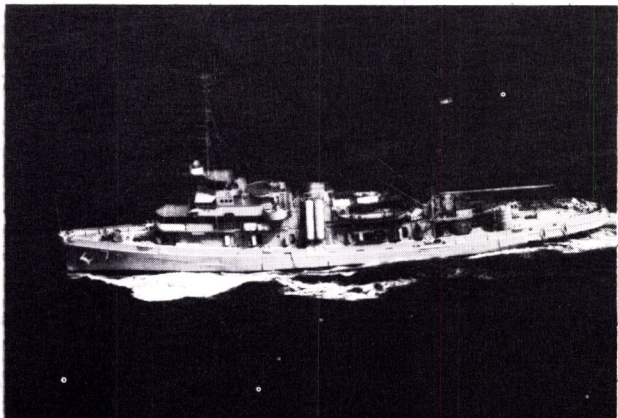
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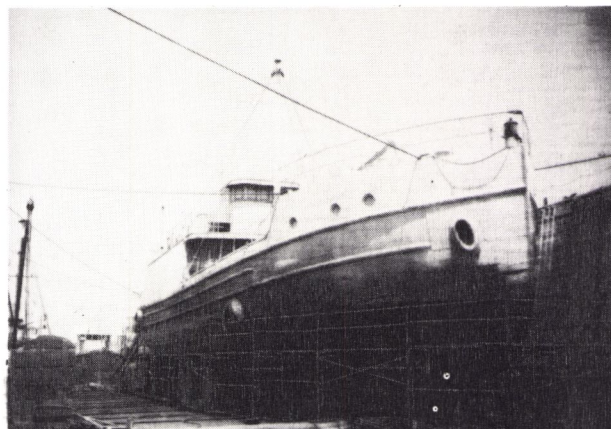
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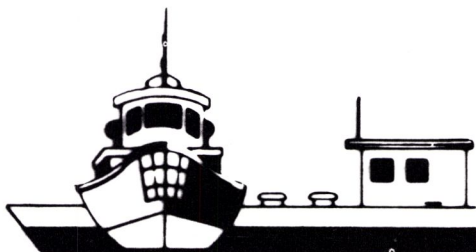
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