

AMERICAN TUGBOAT

Display until 12/31/09

REVIEW 2009

Industry innovations

New hybrid engine rooms
z-drives for inland towboats

ATR'S TOP

12 TUGS

- ▶ Tractor tugs
- ▶ Industry trends
- ▶ New designs
- ▶ Equipment & specs



KAREN ANDRIE

Andrie Inc., Muskegon, Mich.



Brian Gauvin

ANDRIE INTRODUCES ATB-UNIT FOR ASPHALT TRADE ON GREAT LAKES

by Gregory Walsh

The newest articulated tug-barge unit on the Great Lakes has been put into service by Michigan-based **Andrie Inc.**

As part of a contract with BP Products North America, Andrie arranged for construction of a 50,000-barrel heated asphalt barge

and renovated one of its own tugs to complete the unit which is slated to begin work in time for this summer's construction season.

The 360-foot oil barge, *Endeavour*, was constructed at Jeffboat LLC of Jeffersonville, Ind., while the tugboat *Karen Andrie* was converted to ATB

capability and renovated at local shipyards including Erie Shipyard and Great Lakes Shipyard in Cleveland. Tug and barge are connected by the JAK coupler system provided by Beacon Finland Ltd. of Finland.

Although this is the first ATB unit to be built and owned by Andrie, the company has gathered experience with other ATB units for a number of years since it operates two large dry-bulk ATBs on the Lakes for Lafarge North America.



Courtesy Andrie Inc.

The 360-foot barge, Endeavor, is launched this past spring at Jeffboat LLC, Jeffersonville, Indiana. The new barge and the retrofitted tug are outfitted with the JAK coupler system. They will transport heated asphalt cargoes on the Great Lakes and beyond.

"We wanted to use the *Karen* for this project and we felt that the JAK system was the best fit for that particular tug," said Mike Caliendo, vice president of Andrie's transportation group. "It is relatively light compared to some of the other options out there, and when you are retro-fitting that is often an important criteria — how much weight are you going to add to an existing vessel that wasn't designed for that purpose."

Andrie is a family-owned company based in Muskegon, Mich.

The company's new barge can carry about 8,000 tons of heated asphalt or 51,000 barrels of petroleum products. It has a beam of 60 feet and depth of 24 feet. Heating equipment aboard the barge can maintain a cargo temperature of 290° F, according to Andrie.

Perhaps the most unusual feature of the barge is its 27-foot deep stern notch with socket plates on the sides of the notch to match pins that can project out from the sides of the tug. *Endeavour* is possibly the largest deep-water barge



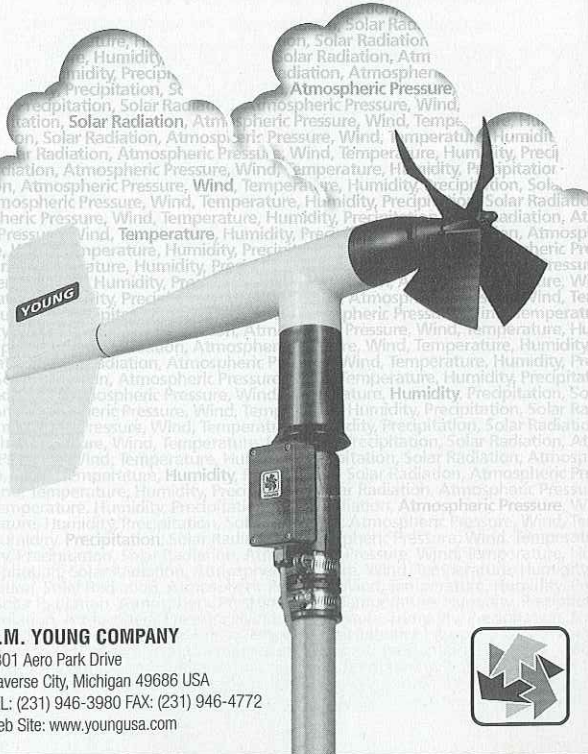
Courtesy Andrie Inc.

ever built by Jeffboat, which has built more than 12,000 barges in its history.

With too much draft for a delivery up the Mississippi to the Great Lakes, the barge was towed south to the Gulf of Mexico where she was picked up by an

Newly refurbished Karen Andrie gets an assist from a sistership at Great Lakes Shipyard in Cleveland where much of her conversion work was carried out. The tug also underwent conversion work for the JAK coupler system at Erie Shipyard.

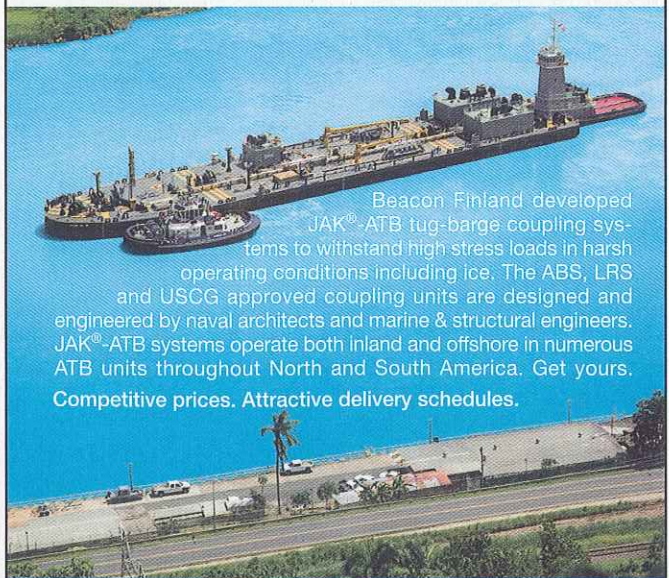
Meteorological Instruments



R.M. YOUNG COMPANY
2801 Aero Park Drive
Traverse City, Michigan 49686 USA
TEL: (231) 946-3980 FAX: (231) 946-4772
Web Site: www.youngusa.com



JAK®-ATB COUPLING SYSTEMS DEPENDABLE AND AFFORDABLE



Beacon Finland developed JAK®-ATB tug-barge coupling systems to withstand high stress loads in harsh operating conditions including ice. The ABS, LRS and USCG approved coupling units are designed and engineered by naval architects and marine & structural engineers. JAK®-ATB systems operate both inland and offshore in numerous ATB units throughout North and South America. Get yours. Competitive prices. Attractive delivery schedules.

Beacon Finland
NAVAL ARCHITECTS & MARINE CONSULTANTS
Beacon Finland Ltd Oy
P.O. Box 228, FI-26101 Rauma, Finland
Tel. +358 2 8387 9500, fax +358 2 8387 9510
www.beaconfinland.com

EXCLUSIVE AMERICAS REPRESENTATIVE:
HALLMAR
THE MARITIME PROFESSIONALS
Hallmar, LLC
1037 Creek Court, Mandeville, LA 70448 (USA)
Tel. (958) 373-1110, fax (985) 626-1873
www.hallmar.net

ocean-going tug for the long trip up the eastern seaboard and up the St. Lawrence River to the lakes.

The tug *Karen Andrie* is a 120-foot deep-water tug with 3,600 hp from a pair of newly installed eight-cylinder 710-series EMD diesels. The new engines were matched with the tug's existing pair of Falk reduction gears, which were also refurbished as part of the repower. The tug also was fitted with a new pilothouse with all new controls and electronics, new engine exhaust system, new engine cooling system and numerous other improvements while being prepared for its new career at Great Lakes Shipyard.

The 44-year-old tug is propelled by three-bladed 120-inch stainless steel propellers. The tug's towing winch was removed as part of the refit, as it would not likely get much use with an articulated tug barge combination.

The tug gets auxiliary power from a pair of John Deere diesels with Spectrum 135-kW generators. She carries 62,000 gallons of diesel fuel.

Andrie Inc. purchased the tug in 1993 from TECO Transport of Tampa, Fla.

The two captains aboard *Karen Andrie* are Ken Haines and Brian Andonov, according to the company.

"The tug is 44 years old, but she's been in fresh water here on the lakes for the past 16 years and she was very well maintained when we purchased her from TECO," said Caliendo.

The barge *Endeavour* is well equipped for her contracted work carrying asphalt and other petroleum products on the Great Lakes.

On deck she carries four Markey mooring winches, and two Markey anchor winches — one on the bow for a 5,000-pound Danforth anchor and another on the stern for a 2,500-pound stockless anchor. The barge is also fitted with a 500-hp OmniThruster electric waterjet bow thruster powered by a Cummins diesel-generator. On deck, a crane with 5-ton capacity and 60-foot extension handles the cargo hoses.

Cummins diesels also power cargo pumps and provide electricity for general hotel needs of the barge.

The barge has been constructed to ice-strengthened specifications and is capable of year-round operation on the Lakes and elsewhere.

Endeavour's heating system, according to Andrie, is capable of not only maintaining a desired cargo temperature, but also elevating the cargo temperature — not so easily done when you are dealing with 50,000 barrels of product. Delivering product at higher temperatures allows the recipient to immediately sell the product, said Stan Andrie, president of the marine division. In seasons of high demand, that is a strategic advantage in the asphalt industry, he added.

The company said when its new barge is not being used by BP, she will be available for movement of heated oil products on the Lakes for other Andrie clients. •

TOW GEAR YOU CAN COUNT ON!



Our famous MARQUIP line brings you the very best in tow plates, shackles, connecting links, and associated gear you need to work the tough jobs, day in and day out. When your reputation's on the line, make sure our gear's on your boat.

CUSTOMER SERVICE 24 HOURS A DAY, 7 DAYS A WEEK
Visit our website for more: www.wachain.com
ASK FOR OUR FREE CATALOG



1-866-WACHAIN
WASHINGTON CHAIN
AND SUPPLY, INC.

P.O. Box 3645 • 2901 Utah Avenue South
Seattle, Washington 98124 USA
FAX (206) 621-9834 • E-mail: info@wachain.com

Mid-Atlantic
MARITIME • ACADEMY
Preparing you on every level



Complete USCG Deck & Engineering Training

We Graduate Proficient Mariners.



COURSE OFFERINGS AT:
www.mamatrains.com
Virginia Beach, VA
866-775-8382