

Power Play

Tug companies continue to add more horsepower.

By Betsy Frawley
Haggerty,
Correspondent

Ultra large neo-Panamax containerships, stringent Tier 4 emissions rules and Subchapter M safety requirements have been game changers for the tug industry in recent years, leading several companies to upgrade their fleets.

"The neo-Panamax ships are absolutely the reason we started building these powerful vessels," said Buckley McAllister, president of New York-based **McAllister Towing and Transportation**. "We now have five of them."

The five tugs are the *Capt. Brian A. McAllister*, *Rosemary McAllister*, *Ava McAllister*, *Capt. Jim McAllister* and *Eileen McAllister*. The first four are nearly identical 100'x40', 6,700-hp, Tier 4 escort Z-drives designed by **Jensen Maritime Consultants**, Seattle, and built at **Horizon Shipbuilding** (now **Metal Shark**), Bayou La Batre, Ala., and **Eastern Shipbuilding Group**, Panama City, Fla. The tugs went into service between August

2017 and August 2019, with the *Brian* and *Ava* working in New York, the *Rosemary* in Norfolk, Va., and *Capt. Jim* in Charleston, S.C.

The fifth, the 93'x38', 6,700-hp, *Eileen McAllister*, was launched in late January at **Washburn & Doughty Associates Inc.**, East Boothbay, Maine. "It has a slightly smaller hull, but the same power," McAllister said. When complete, it will work out of Port Everglades, Fla.

The 2016 widening of the Panama Canal and the raising of the Bayonne Bridge clearance from 150' to 215' in 2017 changed ship traffic in New York Harbor and elsewhere. "Before that, bridge height limited ships to about 5,000 TEUs. Now 14,000-TEU vessels have become a regular part of our business," McAllister said. "New York Harbor sees 15 or 16 neo-Panamax containerships every week, and Norfolk and Charleston also see regular calls from these vessels."

McAllister Towing/Panamax Ferry



The *Capt. Brian A. McAllister* assists the 971' ACL ro-ro/containership (ConRo) *Atlantic Sun* near the Bayonne Bridge in Staten Island, N.Y.

Asked about new regulations, McAlister said that Subchapter M has raised the bar for the company. "We will be retiring some of our older equipment where the upgrades don't make economic sense and building new tugs. No question, the tugboat industry is becoming much more capital intensive."

LOWER MISS TUGS

Shipdocking companies on the Lower Mississippi River have also added more powerful tugs to handle the larger oceangoing ships that they must dock with five-plus mph of current running in the river. "Our customers wanted more power," said Jonathan Davis, senior captain and vice president of training at **Bisso Towboat Co.**, Luling, La. New regulations came into play as well.

In October, the company took delivery of the 100'x38', 6,008-hp *Andrew S.*, the first Tier 4, ASD tractor tug



Eastern Shipbuilding Group

The second Robert Allan-designed RAport 2400 Z-drive shiphandling tug for Bisso Offshore, the *A. Thomas Higgins*, was launched at Eastern Shipbuilding on Jan. 31.

built for use on the Mississippi River. **Main Iron Works**, Houma, La., which has built several tractor tugs for the company, worked closely with Bisso to modify a proven design to add the SCR Tier 4 emissions system, additional bollard pull and Subchapter M safety features. "We had to follow a whole different set of guidelines that added to the cost of the tug, probably in the neighborhood of 20%," Davis said.

In January, **Bisso Offshore LLC**, a division of **E.N. Bisso & Son**, New Orleans, La., added to its fleet with an

80'x38', 5,100-hp Tier 4 Subchapter M tug, the *C.D. White*. Designed by **Robert Allan Ltd.**, Vancouver, Canada, the RAL RAport 2400 Z-drive shiphandling tug was built at Eastern Shipbuilding. The second RAL Z-drive for Bisso Offshore, the *A. Thomas Higgins*, was launched at Eastern on Jan. 31. E.N. Bisso has taken delivery of five previous Z-drive ship assist tugs from Eastern starting in 2007.

HYBRID POWER

A trio of tug companies, looking for



Inland Towboats • Dredges • Tank Barges • Deck Barges • Conversions • Specialized

ALL FABRICATION PERFORMED INDOORS

Climate-Controlled, Robotic Barge Blasting & Paint Facility
Patent Pending • Licensing Available

701 Engineers Road • Belle Chasse, Louisiana 70037 • (504) 433-2000 • www.cmrepair.com

ON THE WAYS

Eastern delivers first of two Z-drives for E.N. Bisso



80' Z-drive tugs sport Tier 4 engines.

Eastern Shipbuilding Group

Eastern Shipbuilding Group Inc. recently delivered the first of two 80'x38'x13'2", 5,100-hp Z-drive tugs, the *C.D. White*, and launched a second, *A. Thomas Higgins*, for New Orleans-based **Bisso Offshore LLC**, a division of **E.N. Bisso & Son Inc.**

C.D. White completed its bollard pull testing at the Panama City, Fla., shipyard, witnessed by the **American Bureau of Shipping (ABS)**, and received its Subchapter M Certificate of Inspection (COI).

Both tugs are **Robert Allan Ltd. RAL RA**port 2400 Z-drive shiphandling tug designs.

In October 2018, Hurricane Michael, a Category 5 storm, struck the Florida panhandle, devastating much of the area, including Eastern Shipbuilding's two shipyards.

"I think it is of particular note that these two vessels have been built at a period in time when you all have come through that bad storm, Michael, and have been impacted by it," Colin Macpherson, E.N. Bisso's executive vice president, said during the launching ceremony for the *A. Thomas Higgins* at Eastern's Allanton, Fla., shipyard. "We are very well aware of that. We want to thank each and every one of you for the travails you have endured while remaining dedicated to the project on hand. We really, really appreciate that."

Main propulsion comes from two **Caterpillar 3512E** Tier 4 diesel engines, producing 2,549 hp at 1,800 rpm each, connected to twin **Kongsberg/Rolls-Royce US205 P20** Z-drives. During testing, bollard pull was measured at 67.5 short tons (stern pull) and 65.2 short tons (bow pull).

Ship's service power is supplied by two **John Deere 4045AFM85** marine generator drive engines from **Kennedy Engine Co. Inc.**, each sparking 99 kW of electrical power at 1,800 rpm.

On deck are a **Markey Machinery DEPCF-42 HS** single drum, 40-hp render/recovery, line tension display, electric escort hawser winch, a **Markey CEPB-40** 5-hp tow bitt capstan, and a **Washington Chain & Supply** 90-ton SWL electric-air remote control, manual or remote release tow hook.

E.N. Bisso is one of Eastern's long term customers. The tug operator has taken delivery of four previous modern Z-drive ship assist tugs from Eastern starting in 2007 (*Josephine Anne*, *Beverly B*, *Elizabeth B*, and the *Archie T. Higgins*).

The two new RAL RAport 2400 tugs have been customized by the designer, builder, and owner to provide specific operational features including a high bollard pull forward

and aft, enhanced maneuverability and escort performance, better fuel economy, crew comfort, safety under the new Subchapter M requirements, and reduced emissions that meet EPA Tier 4 emissions standards.

Capacities include 28,000 gals. of fuel oil; 8,750 gals. potable water; and two 850-gal. urea tanks. There is also a **Counterfire** ES-125-400, 1,500-gpm at 100 psi, diesel engine driven firefighting system, including a 4" **Stang** remote controlled fire monitor. — *Ken Hocke*

Gladding-Hearn to build new class of pilot boats for Maryland pilots

Gladding-Hearn Shipbuilding's newest line of pilot boats is the Baltimore class for the Association of Maryland Pilots. The name comes from the port of Baltimore, the pilots' base

Gladding-Hearn



The first 48'6" Baltimore-class pilot boat is scheduled for an April 2021 delivery.

of operations.

The first 48'6"×15.6'×4' pilot boat is scheduled for an April 2021 delivery. The Somerset, Mass., boatyard is scheduled to start cutting metal for the boat by the end of February.

The Maryland Pilots currently have three 53' Chesapeake-class pilot boats from Gladding-Hearn and a fourth one is under construction. These are offshore boats based out of the pilots' Virginia Beach station. The new 48' boat is for "up the Chesapeake Bay between the mid-bay station and Baltimore Harbor," said Peter Duclos, president of

Gladding-Hearn.

The 48-footer could be based in Baltimore Harbor or at the mid-bay station where it would swap out pilots at the end of their allowed 12-hour work schedule while making a run as long as 130 miles from when the pilot first boards to the harbor. The mid-bay station is about halfway up Chesapeake Bay.

That takes a much smaller boat than the offshore pilot boats. It's "the reason for the new class," said Duclos. "It can be smaller, faster and burn less fuel." Duclos added that the design is based

BOATBUILDING BITTS

All American Marine Inc. (AAM) has been awarded a contract to build two sister vessels for **Major Marine Tours**, Seward, Alaska. The 87'×32' **Teknicraft Design** aluminum catamarans will be USCG Subchapter T certified for 150 passengers. The quad-jet vessels will expand Major Marine's fleet of wildlife and glacier cruise vessels that visit Kenai Fjords National Park. The semi-displacement catamarans were developed by Nic de Waal of Teknicraft, Auckland, New Zealand. The design integrates Teknicraft's symmetrical and asymmetrical combined hull shape. The advanced hull design is complemented by Teknicraft's integration of a wave piercer positioned between the catamaran sponsons to break up wave action and ensure reduced drag while enhancing passenger comfort. The propulsion package includes quad waterjets, powered by **Scania** DI16 082 engines, each rated at 788 hp at 2,100 rpm. The new vessels will feature a cov-

ered, open-air top deck in addition to a large stadium standing bow area. Interior amenities include **Beurteaux** seats, maximizing passenger comfort. The entire main deck is wheelchair accessible allowing guests to travel from the bow to the stern. AAM also announced recently that it has been named the West Coast shipyard by **Birdon America Inc.** for phase one of a contract to perform a Service Life Extension Program (SLEP) on a number of the Coast Guard's fleet of motor lifeboats (MLB). AAM is currently working on two MLBs at its shop, with a plan to ramp up to eight MLB vessels each year during phase two. Birdon was awarded the prime contract to perform SLEP work on all MLBs in the Coast Guard's fleet. The current in-service MLBs were designed by the USCG and built from 1997 to 2003. The 47' MLB is the Coast Guard's primary search-and-rescue platform operating in surf and heavy weather conditions. It has self-righting capability and the ability to operate in winds up to 50 knots, seas up to 30', and surf up to 20'.

Metal Shark has delivered a new 36' welded-aluminum patrol boat to the Policia Municipal de San Juan (San Juan Police Department), its latest customer in Puerto Rico. The new patrol boat is a 36 Fearless stepped-bottom center console vessel built at Metal Shark's Jeanerette, La., production facility and custom-configured to meet the requirements of the San Juan Police Department. The high-performance craft has been equipped with triple 300-hp **Suzuki** outboard engines and reaches a top speed in excess of 50 knots. Other

All American Marine



150-passenger ferry for Alaska under construction.