

Casualties: Two die after workboat capsizes during Louisiana spill response drill

# PROFESSIONAL MARINER

JOURNAL OF THE MARITIME INDUSTRY

Issue #250  
October/November 2020  
U.S. \$4.99  
Canada \$4.99



## Crew crisis: Shipbound in a pandemic

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# At Work



## Weeks flagship dredge builds its name on Jersey shore

Story and photos by Brian Gauvin

The winter of 2018 saw the trailing suction hopper dredge *Magdalen* vacuuming sand from a borrow site off the coast of Surf City, N.J., and pumping

City, Fla., had recently joined *R.N. Weeks* and *B.E. Lindholm* in the Weeks Marine hopper dredge fleet (*American Ship Review* 2019). In the summer of 2020, *Magdalen* nourished the beaches and dunes at Sea Bright and Long Branch on the Jersey shore.

In mid-August, the vessel was scheduled to travel to Hampton Roads, Va., to join the ongoing project “to deepen and widen the Thimble Shoal Channel leading to Virginia Port Authority-owned public terminals, many private marine terminals, and the world’s largest naval base (at Norfolk,” said Mark Sickles, director of corporate and government relations for Weeks Marine.

*Magdalen* was designed specifically for U.S. coastal dredging conditions by Netherlands-based Royal IHC. It has a hopper capac-

ity of 8,550 cubic yards, more than the combined volume of its two fleet mates. With a hull form that includes a large bulbous bow, *Magdalen* also has the edge in speed and fuel efficiency — the money in dredging is in dredging, not steaming between two points. The vessel’s ability to operate close to shore minimizes the length of the shore discharge line and maximizes its self-emptying speed.

The expanded pumping capacity and automation further maximize the dredge’s efficiency. *Magdalen* has a suction arm on the starboard side, a design that optimizes the capability of the IHC single-wall dredge pump. On the port side is an IHC double-walled booster pump for shore discharge operations. The configuration enables the vessel to pump longer distances via its own dredging and power generation plant.



*Magdalen*, above, dredges the borrow area on the ocean floor 6.5 miles off Surf City, N.J. The vessel’s bow coupling, left, hydraulically locks the float hose to the discharge pipe system.

it ashore to replace a 20-foot-high dune reclaimed by the ocean during Hurricane Sandy’s hungry visit in 2012.

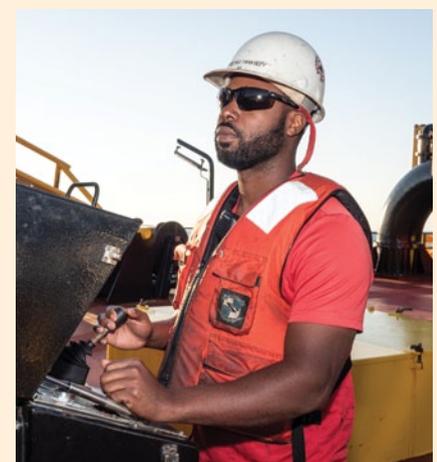
The 356-foot dredge, built by Eastern Shipbuilding in Panama



*Magdalen's* massive drag head stands ready to be deployed as the ship heads to the dredge site.



Chief engineer Scott Sirois, above, adjusts controls on the local operating console for the main engines. Below, *Magdalen* drag tender James Willis monitors the discharge of dredged sand to the beach.



Able seaman Antonio Tanksley, operating the bow connection winch drum, pulls the pickup wire aboard.

“From the outset, her performance exceeded expectations,” Sickles said. “In fact, it was her production that led Weeks Marine’s executives to sign a contract to build her sister vessel at Eastern Shipbuilding.” The new vessel will be named *R.B. Weeks* in honor of Richard B. Weeks, a co-founder of the company and husband of Magdalen Weeks.

Though *Magdalen's* inaugural beach nourishment project and last summer’s work were similar, COVID-19 added another layer of corporate and personal responsibility.

“Strict travel restrictions, onboard limitations, heightened sanitation routines, regular temperature checks, personnel surveys prior to returning to the job site and more are part of the new normal on Weeks project sites as well as in the office,” Sickles said.

The delivery of *Magdalen* in 2017 was a milestone in the company’s century-long history, according to Weeks Marine President Richard S. Weeks.

“With the demand for land reclamation and beach nourishment growing, we believe that better tools are needed to retain our competitive edge,” he said. “She is a very important part of our continued growth as a fully integrated marine construction company.”

## **Magdalen** SPECIFICATIONS

Owner/operator: Weeks Marine Inc., Cranford, N.J.  
 Designer/builder: Royal IHC, Kinderdijk, Netherlands/Eastern Shipbuilding Group, Panama City, Fla.  
 Dimensions: L: 356' B: 79' D: 27'  
 Mission: Trailing suction hopper dredge  
 Crew size: 21

### PROPULSION

- (2) GE 16V250 diesel engines, 5,682 hp each
- (2) Siemens Flender gearboxes
- (2) Wartsila controllably-pitch propellers
- Wartsila FPP tunnel thruster
- GE 6L250 auxiliary generator, 1,423 kW
- Caterpillar C18 emergency generator, 425 kW

### DECK EQUIPMENT

- (2) Ridderinkhof anchor windlasses
- Ridderinkhof mooring capstan
- Techrane F80-85 crane
- Techrane F120-52 crane

### NAVIGATION/COMMUNICATIONS

- IHC Systems dynamic positioning/dynamic tracking system
- Furuno FAR-2107 radar
- Transas Navi-Sailor ECDIS
- Simrad GC80 gyrocompass
- Sperry Jupiter magnetic compass
- Furuno FA-150 AIS
- Simrad AP80 autopilot
- Furuno GMDSS radio suite
- VSAT satellite connection

### ADDITIONAL EQUIPMENT

- Fassmer freefall lifeboat
- Fassmer rescue boat
- Fixed CO2 fire suppression
- Conical bottom valves for dumping material
- Self-emptying doors and self-emptying channel