

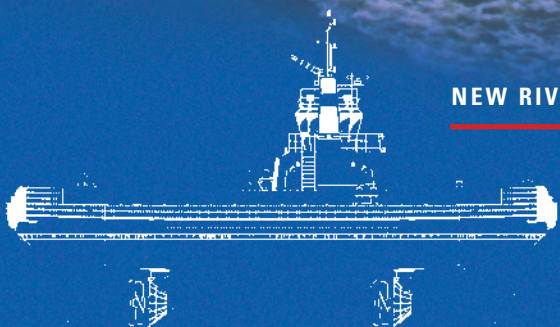
SHIP DOCKING MODULE

SDM™

INNOVATIVE TRACTOR TUG TECHNOLOGY



NEW RIVER | ST. JOHNS | ESCAMBIA | MOBILE POINT | SUWANNEE RIVER



*Ship Docking Modules
for the Global Transportation Industry*

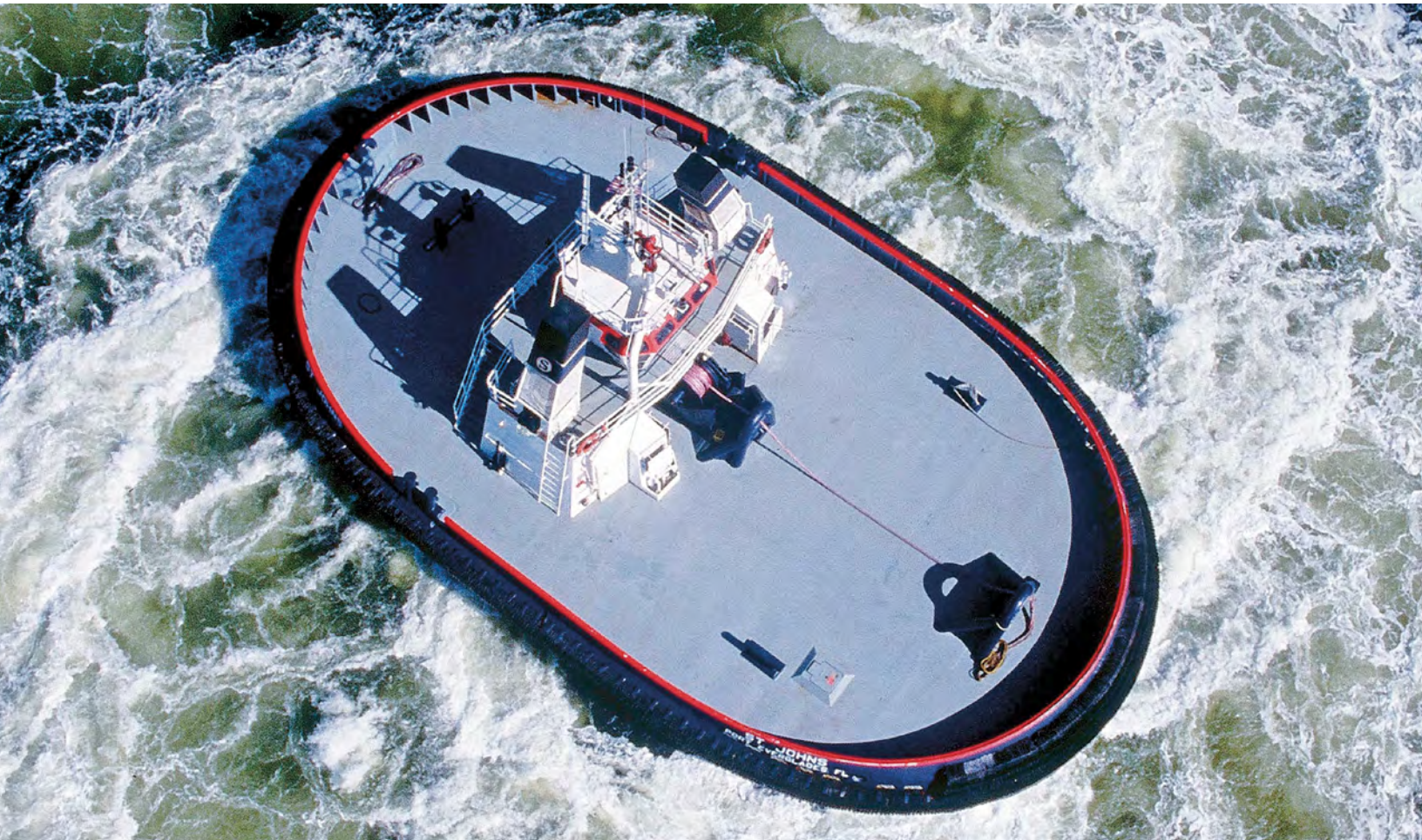
Patent-Licensing of SDM™ Technology

Innovative tractor tug technology took a giant leap forward when Seabulk Towing, Inc. introduced the Ship Docking Module (SDM™). Developed with customers' needs in mind, and with assistance from the Elliott Bay Design Group, the SDM™ is powered by twin Z-drives mounted fore and aft and together generating 4,200 horsepower. The unique design of this 90-foot tug can produce 100% of its ABS-certified bollard pull of 120,000 lbs. in any direction. Specifically built for ship-assist work in confined areas, each SDM™ is fully equipped to move vessels in and out of the harbor safely and in the most timely and cost-efficient manner.

Respected shipping companies and pilot organizations have requested the services of the SDM™ fleet (*New River, St. Johns, Escambia, Mobile Point, and Suwannee River*) to dock thousands of commercial ships in Mobile Bay, Tampa Bay and Port Everglades, Florida because of their powerful performance and ability to safely maneuver ultra-large commercial ships within narrow channels and environmentally sensitive waterways.

Seabulk Towing takes pride in its outstanding safety record that has been maintained for more than five decades, and for that reason it equipped the Z-drives on our SDMs™ with specially designed "manatee guards" to protect against harming the gentle sea cows that frequent Port Everglades and Tampa Bay. In its commitment to the protection of the environment, our customers' assets and the community, Seabulk Towing is certified under the American Waterways Operators Responsible Carrier Program and is committed to preventing accidents, injuries and pollution. Additionally, SDMs™ are equipped with the latest firefighting and safety equipment.

Seabulk Towing is now patent-licensing these modern marvels to the tugboat industry. After extensive research, a well-known European tug operator embraced the SDM™ technology and validated its widespread application by signing a patent-licensing agreement to construct four of these innovative vessels for their competitive ship-docking market. Seabulk Towing extends a similar invitation to you to explore the potential of the SDM™. Ask us how your organization can employ the most advanced tractor tug technology in the world.





Embracing the Ship Docking Module (SDM™) Technology

Recognized as one of the most uniquely innovative designs in the maritime industry, the SDM™ has proven time and again its ability to maneuver in the narrow confines of docks and around large commercial vessels with unparalleled power and agility.

The SDM's™ revolutionary semi-flat bottom hull is mounted with two diametrically opposed azimuthing Z-drives, which allows for 100% of its ABS-certified 120,000 lbs. of bollard pull to be applied in any direction while stationary against a ship's hull. The vessel can effectively propel itself sideways at six knots, and forward and astern at up to 12.5 knots.

The 4,200 horsepower SDMs™ are 90-feet in length with 50-foot beams. The boats are stabilized in the water with 12-foot skegs fore and aft. While in a ship-assist mode, the SDM's™ centrifugal fendering system allows the boat to utilize every point of its hull to control and maneuver a ship.

The SDM™ is powered by two Wartsila 9 cylinder engines which run at 1000 rpm and develop 2100 bhp. The engines are coupled to the Z-drives, which incorporate the speed reduction gearing and steering, allowing the propeller and nozzle to rotate 360°.

On deck, the SDM™ is equipped with a Markey Hawser Hydraulic soft-line, single-drum winch loaded with 400-feet of 12-strand, 8.5-inch circumference Plasma line. The winch has a maximum brake capacity of 340,000 lbs., which is monitored on a single-station control panel in the 360-degree visual wheelhouse.

Seabulk Towing has now patent-licensed these modern marvels to the tugboat industry. To discover how your organization can employ the most advanced tractor tug technology in the world, contact Dan Thorogood at 954 627 5197 or via email at sdmtechnology@ckor.com.

Website: www.seabulktowing.com



The American Waterways Operators
**RESPONSIBLE
CARRIER
PROGRAM**



Twin Z-drive, double-ended Ship Docking Module Tractor Tug Mark II

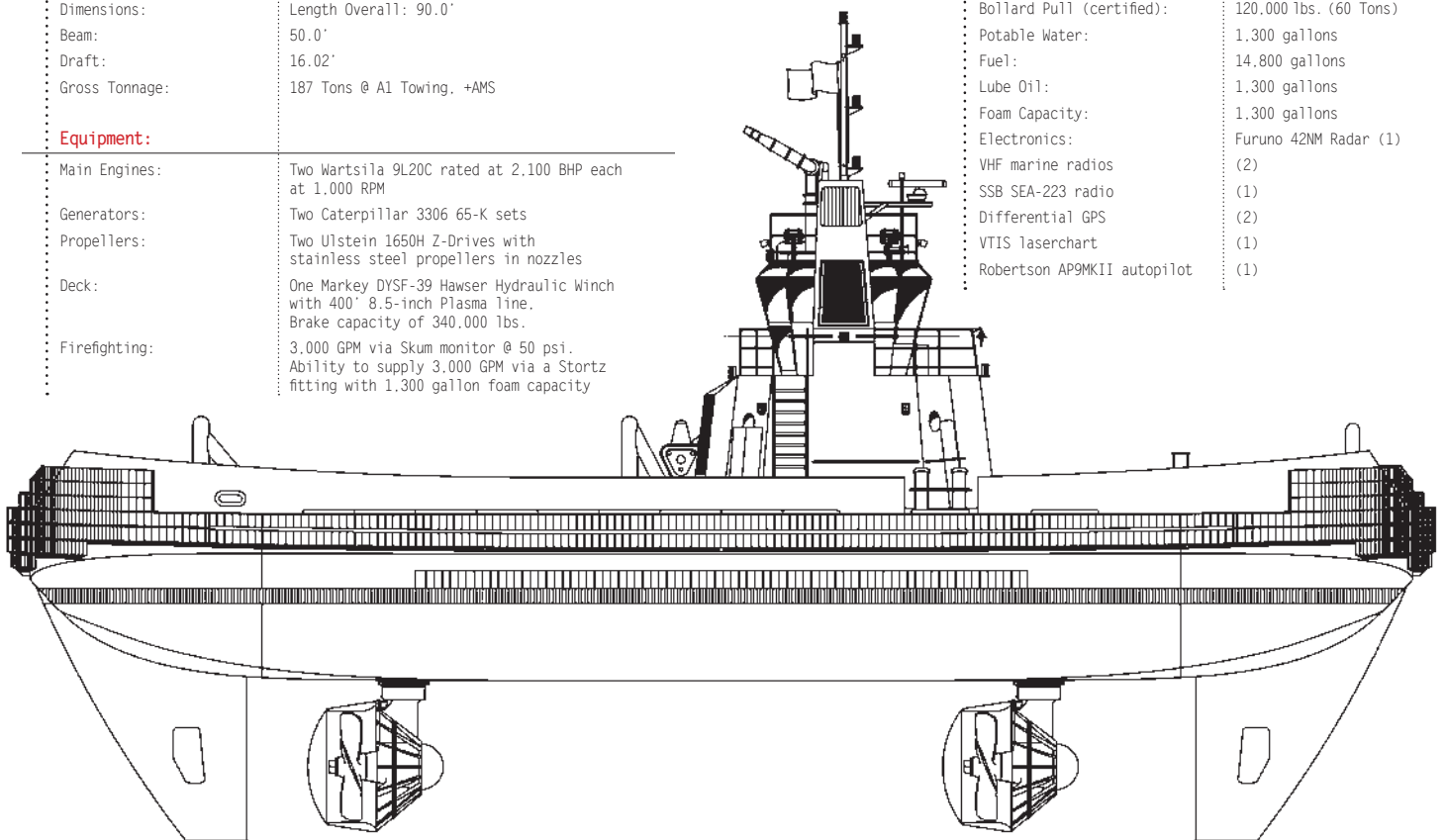
Dimensions:	Length Overall: 90.0'
Beam:	50.0'
Draft:	16.02'
Gross Tonnage:	187 Tons @ A1 Towing. +AMS

Equipment:

Main Engines:	Two Wartsila 9L20C rated at 2,100 BHP each at 1,000 RPM
Generators:	Two Caterpillar 3306 65-K sets
Propellers:	Two Ulstein 1650H Z-Drives with stainless steel propellers in nozzles
Deck:	One Markey DYSF-39 Hawser Hydraulic Winch with 400' 8.5-inch Plasma line. Brake capacity of 340,000 lbs.
Firefighting:	3,000 GPM via Skum monitor @ 50 psi. Ability to supply 3,000 GPM via a Stortz fitting with 1,300 gallon foam capacity

Capacities:

Bollard Pull (certified):	120,000 lbs. (60 Tons)
Potable Water:	1,300 gallons
Fuel:	14,800 gallons
Lube Oil:	1,300 gallons
Foam Capacity:	1,300 gallons
Electronics:	Furuno 42NM Radar (1)
VHF marine radios	(2)
SSB SEA-223 radio	(1)
Differential GPS	(2)
VTIS laserchart	(1)
Robertson AP9MKII autopilot	(1)



Ship Docking Modules for the Global Transportation Industry

