

# Marcon International, Inc.

Vessels and Barges for Sale or Charter Worldwide

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May 2022

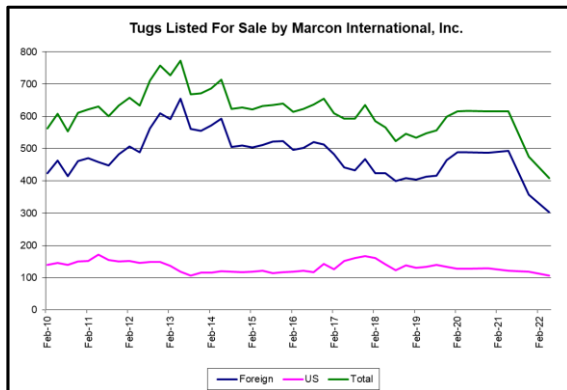
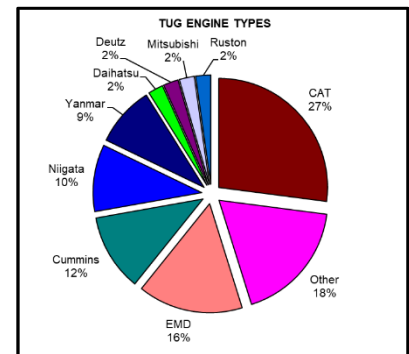
## Tug Market Report



Of the 13,448 vessels and 3,719 barges that Marcon tracked as of May 2022, 5,198 are tugs with 409 officially on the market for sale worldwide, down 66 or 13.89% from one year ago, May 2021, and down 184 or 31.03% from May 2017. 96.26% of U.S. and 43.71% of foreign tugboats for sale are direct from Owners. 81 or 19.80% of the tugs worldwide, primarily foreign flagged, were built within the last 10 years, are newbuilding re-sales or currently under construction – compared to 29.47% one year ago and 30.69% five years ago. 67 (16.38%) are over 50 years of age. Eleven have no age listed. The oldest tug Marcon currently has listed is a 122' LOA, 1,950BHP single screw tug located on the U.S. Great Lakes. This “old lady” is balanced by four newbuildings between 1,490BHP and 4,400BHP scheduled for delivery in 2021. Two newbuildings are azimuthing for delivery to the Far East and Mediterranean, with the remaining two traditional twin screw tugs for delivery to the U.S. and Southeast Asia.

### Market Overview

The majority of tugs Marcon tracks for sale as of this report are in the US with 106 tugs officially on the market (vs. 125 one year ago), followed by 71 in Southeast Asia (118), 53 in Europe (64), 52 in the Far East (65), 33 in the Mediterranean (74), 29 in Latin America (43), 17 in the South Pacific (21), Mid-East with 15 (59), 11 in the Caribbean (16), 10 where location unstated (12), 7 in Canada (6) and 5 in Africa (11). Where machinery is known, CAT diesels power 109 or 27% of the tugs listed for sale. This is followed by 63 vessels with EMDs, 46 Cummins, 40 Niigata, 36 Yanmar and 9 each with Daihatsu, Deutz, Mitsubishi and Ruston. 73 tugs are powered by other machinery from Akasaka to Wartsila with one Fairbanks Morse tug on the market.



Five years ago, 30.69% of tugs for sale worldwide, primarily foreign flag, were built within the previous 10 years compared to 19.80% today. Then 11.97% of the tugs on the market were 50+ years old compared to 16.38% today. At that time, Marcon had two tugs older than 75 years compared to six today. The average age of all tugs that Marcon has for sale worldwide today is 30 years, with 1992 average build date, compared to 27 years, 1990 average built, in May 2017. The U.S. had the largest selection of tugs listed in 2017 with 150 available (25.3%), followed by 124 in Southeast Asia (20.9%), 65 in Europe (11.0%), 58 in the Mid East (9.8%), Far East 50 (8.4%), Mediterranean 35 (5.9%), 26 in the South Pacific (4.4%), 25 in Latin America (4.2%), 16 Africa (2.7%), 15 Canada (2.5%), 14 in the Caribbean (2.4%), 9 where location is unknown (1.5%) and 6 in Southwest Asia (1.0%).

Looking at tugs for sale worldwide, conventional twin screw tugs lead with 258 (63.1%) available, followed by 90 azimuthing (22.0%), 43 single-screw (10.5%), 13 Voith Schneider tractors (3.2%) and 5 triple screw (1.2%). This is fairly comparable to five years ago when 15.5% of the 593 tugs for sale were single screw, 60.0% twin screw, 21.4% azimuthing, 2.5% VS tractor and 0.5% triple screw tugs. Bearing in mind that we are focusing on those available for sale, it seems that for the past five years, azimuthing and conventional twin screw tugs have maintained steady positions in the market. Single screw tugs are mostly relegated to nearly zero commercial work, except in certain specific cases. Available for sale units have dropped considerably with many of those being scrapped due to age and condition. It is noted that in mid-May 2022, Sea-Web reported 2,134 tugs worldwide scuttled, broken up or to be broken up world-wide. This is up 34.38% from May 2021's 1,588. Prior reports tracked the scrapping at around 3%, so this confirms our observations that many companies continue to aggressively scrap excessive tonnage amidst the economic fallout of the COVID 19 pandemic in various sectors of the market.

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Details believed correct, not guaranteed. Offered subject to availability.

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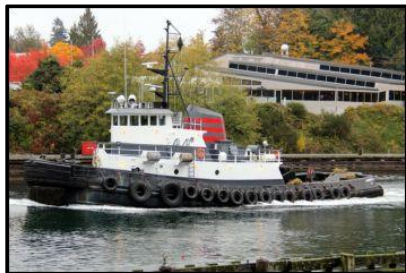
## Tug Boat Market Report – May 2022

Marcon's database shows 184 fewer tugs officially for sale than five years ago in May 2017 with largest shifts in the lower horsepower categories. There are 51 fewer tugs are today listed in the 3-4,000HP range with average age increasing from 24 to 29 years. The 2-3,000HP range lost 41 tugs while their average age increased from 28 to 34 years. 29 fewer tugs are listed in the 1-2,000HP range, with average age increasing from 29 to 33 years old. The 4-5,000HP range decreased by 26 tugs with average age rising from 20 to 21 years. There are 22 fewer 5-6,000HP tugs with average age increasing from 16 to 25 years now. The under 1,000HP tugs category decreased by 13 with a five year decrease in age to 36 years. There were minor changes in the higher horsepower ranges as far as number available for sale and average age. In summary, we saw a 31.03% drop in listings, all in the under 6,000HP ranges and average age overall increased by three years.

Marcon has closed ten sales to date in 2022 and we have several additional sales pending. This aligns with positive sentiment overall. Activity has nearly doubled compared to 2021 (our worst year ever) and it seems we have finally broken out of the Covid-19 overhang. Operating tugs and barges are in short supply both in the US and international market. Across the age spectrum, the lack of inventory on the second-hand market is our biggest challenge as brokers. Inquiries have steadily increased, especially for ocean deck barges. The rise in diesel prices has refocused buyers on fuel efficiency, creating greater demand for lower BHP "right-sized" tugs. Gone are the days of buying or chartering a 6,000BHP tug to do a job that a 4,000BHP tug can do. Inflation in general has driven up prices to maintain and reactivate tugs and barges, driving the prices of units with current certificates higher. We have also seen several examples of engine and other part shortages, pushing some buyers away from taking on laid-up vessels. Higher oil prices have driven marginal demand for offshore towing and barges, hitting an already tight market. Anticipation of wind projects has several owners holding onto various currently under-utilized tugs and barges. Although there is no way to predict the future, it seems we have at least a few decent years ahead, just getting caught up from the work delayed during the pandemic.

### Recent Marcon Tug Sales & Charters

Marcon has sold four tugs totaling 8,885BHP to date in 2022, after selling or fixing tows for nine tugs totaling 45,690BHP in 2021. In 2020, we sold or chartered eight tugs totaling 32,250HP. Since our first sale in 1983, Marcon sold or chartered 382 tugs totaling 1,245,572BHP out of 1,537 sales and charters total.



Marcon is pleased to announce the sale of the U.S. flag, 3,000BHP twin screw tug "Kimberly C." from Curtin Maritime Corp. of Long Beach, CA. The tug was sold in February 2022 to its new Owners on private terms. The tug was built in 1978 at McDermott Shipyards in Amelia, LA as the "Robin XIV" (Hull No. 240) for the Robin International Towing Co., of Harvey, LA. Over the years she has seen continued employment under numerous Owners and names, and is well known in the USA on all coasts. She was sold by Robin International to Sea Containers, Inc. in 1985 and worked for a short stint as the "Seaco Intrepid" until she was sold to Bay Transportation Company of Tampa, FL. That company was acquired by

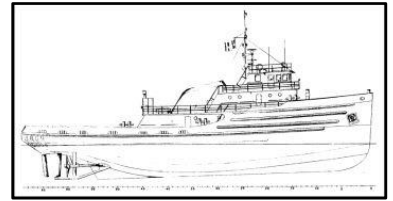
Hvide Marine, Inc. (Seabulk International, Inc.) in 1988 when, following the acquisition, the tug was renamed "Intrepid". In 1990, the tug was again renamed, now to "Broward", under which she worked another six years or so until she was sold to Sea Coast Towing in Seattle, WA, who then renamed her as "Paragon". In 2007 Sea Coast Towing was acquired by K-Sea Transportation, LLC, which in turn was acquired in 2012 by Kirby Offshore Marine, LLC. In May 2018, Marcon brokered the sale of the "Paragon" to Curtin Maritime Corp. The tug was given Curtin Maritime's company colors and refit / upgraded with a new interior, put through the USCG COI process and traded successfully as the "Kimberly C.", until she was sold again via Marcon to her new Owners in Q1 2022. The "Kimberly C." is known throughout the market as a 'nice riding tug' and a workhorse for all that have owned and operated her. We wish the new Owner all the best, with fair winds and following seas, in her continuing and storied service.

The tug's dimensions are 105' LOA x 32.0' beam x 15.3' depth with about 13.7' loaded draft. She is powered by a pair of EMD12-645E2s for 3,000BHP @ 900RPM driving a pair of 108" x 74.5" fixed pitch 4-bladed stainless steel propellers through Lufkin RHS 2120 3.973:1 reduction gears on 9.25" diameter shafts. She is open wheel and packs about 65,000g of fuel and 4,700g of water for a crew with berthing for about nine persons. The "Kimberly C.'s" business end sports an Intercon Double Drum DD-200 towing winch with a wire capacity of 2,200' x 2" on the one drum (with level wind) plus typically working with a synthetic line on the other drum. She also has a Nordic hydraulic double towing pin platform and stern roller aft. She has USCG COI SubChapter M certification and an ABS Loadline.

# Marcon International, Inc.

## Tug Boat Market Report – May 2022

Marcon sold on a private and confidential basis a 3,900BHP twin screw tug between U.S. parties. The vessel has been refitted and is already at work for its new owners.



Marcon International, Inc. is pleased to announce the sale of a U.S. flag 1,300BHP twin screw tug between private buyer and seller. Marcon acted as sole broker in the transaction.

Marcon is pleased to announce the sale of the small line handling tug "Aoli" between Caribbean parties. Built in 2005 at Master Marine in Alabama, the tug measures 40ft x 16ft and is powered by twin John Deere main engines creating around 685BHP. The vessel was stored ashore for the past 18 months but will be reactivated, reflagged and relocated to start operations for its new owners. Marcon was the sole broker in the transaction.



### Featured Tugs Available for Sale



**File: TG70136 Tug - Twin Screw:** 135.1' loa x 38.0' beam x 20.0' depth x 18.00' loaded draft. Built in 1975 by Astilleros del Atlantico; Spain. Rebuilt: 2001. Mexico flag. GRT: 721. ABS + A1, Ice C , Tow Service + AMS, Unrestricted. Exp Aug 2020. Dwt: 824mt. FO: 190,000g. FW: 22,000g. Winch: Smatco 66DAW dbl drum / GM8V-71 powered. Line Pull: 200T. Wire: 2,200' 2.25" ea drum (max). Stern Roller. Main Engines: 2 x EMD 20-645E7B total **7,200BHP**. 2 - FP props on 12" shafts. Kort nozzles. **Bollard Pull: 80MT**. Speed about 13kn on 270gph. Gensets: 2 - 152kW. Quarters: Total 9 crew. AirCon. Galley. Completely reconditioned &

repowered in 2000. Welded steel hull with model bow, raised foc'stle bow, rounded stern with roller, two level superstructure forward with upper pilothouse. SB shark jaws (model: 350MTSJ), SB dual tow pins (model: 350MTTPA). 14' x 4' stern roller. **U.S. Gulf Coast.**

**File: TG65136 Tug - Twin Screw:** 136.0' loa x 34.0' beam x 20.0' depth. Built in 1976 by Service Machine; Amelia, LA. Rebuilt: 1991. U.S. flag. GRT: 163. ABS. Loadline. FO: 150,000g. FW: 12,000g. Winch: Intercon DD225/GM 6-71. Line Pull: 60T Brake. Stern Roller. Main Engines: 2 x EMD 16-645E5 total **5,700BHP**. Engines rebuilt 2003. 138" x 94" 4-blade SS props on 11.5" shafts. Propellers are inboard turning. Shaft brakes (38VC 1200 Split). Gensets: 2 - 99kW / John Deere 6068-75 280vAC. 12 in 7 cabins. AirCon. Galley. Bow pud, "D" fendering. Double chine hull design. Keel coolers. **U.S. Northwest.**



**File: TG57135 Tug - Twin Screw:** 136.0' loa x 34.8' beam x 20.0' depth. Built in 1974 by Service Machine; Amelia, LA. Rebuilt: 1995. U.S. flag. GRT: 163. ABS Loadline. FO: 150,000g. FW: 18,374g. Winch: Intercon. DD 225/GM6-71. Line Pull: 60T Brake. Main Engines: 2 x EMD 16-645E5 total **5,700BHP**. 2 - 138" x 90" FP props on 11.5" shafts. 40" CM 550 Clutches. Propellers are inboard turning. **Bollard Pull: 130,000lb**. Gensets: 1- 99kW / John Deere 6068-75, 1-99kW / John Deere 4045AFM85. Quarters: 12. AirCon. Galley. Raised foc'stle bow. Double chine hull design. Keel coolers. Hydraulic ISI 5 pin tow pins aft. **U.S. West Coast.**

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## Tug Boat Market Report – May 2022

**File: TG48137 Tug - Twin Screw:** 136.6' loa x 40.0' beam x 20.2' depth. Built in 1982 by Main Iron Works Inc.; LA. U.S. flag. GRT: 161. ABS + A1, Towing Service + AMS, Unrestricted Service exp. Feb 2022. FO: 173,250g. FW: 25,000g. BW: 83,060g. Crane: Nautilus 5T hyd. Winch: Markey TDS-36 double drum. Line Pull: 125T. Wire: 2,200' x 2.25". Main Engines: 2 x Alco 12-251E total **4,860BHP**. 126" x 122" 4-blade props on stainless shafts. Kort nozzles. Gensets: 2 - 150kW / GM8V71. 13 bunks. AirCon. Galley. Raised foc'stle bow & upper pilothouse with 56' eye level. Secondary Almon Johnson tow winch with capacity for 1,800' 2.25" wire. Rescue boat. ITC Tonnage: 815G / 244N. **U.S. Gulf Coast.**



**File: TG41001 Tug - Twin Screw:** 121.0' loa x 34.0' beam x 19.2' depth x 15.00' light draft x 18.50' loaded draft. Built in 1971 by Halter Marine; New Orleans, LA. Rebuilt: 2003. U.S. flag. GRT: 196. ABS + A1 Towing + AMS. Unrestricted. Special & Docking Surveys overdue Nov 2018. In Layup status. Dwt: 499T. FO: 110,400g. FW: 6,100g. BW: 20,700g. Winch: Skagit DTW double drum & capstan. Line Pull: 125T. Wire: 2,500' x 2". Stern Roller. Main Engines: 2 x Alco 12-251C total **4,100BHP**. Last Overhauled: 2004. 132" x 95" 4-blade props. Range at 11kn abt. 9,200nm. P/S Tailshaft Surveys overdue Dec 2018. **Bollard Pull: 63ST**. Speed about 11-13kn free. Gensets: 2 - 150kW / GM 8V71 440vAC 60Hz.

Quarters: 9 crew. AirCon. Galley. Reportedly in excellent condition and ready to work tomorrow. Upper Pilot house with 49' height of eye. Previously towed 737' x 105' barge from Mexico to Florida at average of 8.2kn. Full package of certificates, photos, work history, details on repairs / upgrades and owner's brochures available. **U.S. Gulf Coast.**

**File: TG40022 Tug - Twin Screw:** 109.0' loa x 31.0' beam x 14.0' depth. Built in 1975 by Halter Marine Services Inc. U.S. flag. GRT: 198. ABS +A1 Towing Service, +AMS, SS due 11/2019. FO: 83,302g. FW: 5,086g. BW: 11,411g. Winch: Markey single drum. Wire: 2,000' x 2". Stern Roller. Main Engines: 2 x EMD 16-645E6 total **4,000BHP**. 100"x76" 4-blade props. Speed about 8.5-10kn on 80-95gph. Gensets: 2 - 99kW / GM6-71. Quarters: 10 in 5 cabins. AirCon. Galley. Upper pilothouse. Molded "D" fendering system. Sold to present owner by Marcon. Not officially on the market, but may develop for sale. Tug laid-up since early 2020. Try offers. **U.S. Northeast.**



**File: TG39139 Tug - Twin Screw:** 139.0' loa x 34.0' beam x 17.2' depth x 10.60' light draft x 14.90' loaded draft. Built in 1976 by Burton Shipyard; Port Arthur, TX. Rebuilt: 2000. U.S. flag. GRT: 198. ABS +A1 Towing Service exp. 30 May 2025. USCG COI exp. 13 Sept 2024. Dwt: 636lt. FO: 129,600g. FW: 21,300g. BW: 122,400g. Winch: Intercon Double drum. Line Pull: 100T. Wire: 2 - 2,500' x 2". Main Engines: 2 x EMD 16-645E6 total **3,900BHP**. 2 - FP 115" x 90" 4-blade props. **Bollard Pull: 50T**. Speed about 10kn on 165gph. Gensets: 2 - 100kW. 14 in 6 rooms. AirCon. Aluminum upper pilothouse. 51' min/54.9' max height above water. 6' x 2' stern roller. Tow pins. Open wheels. JAK system pins still installed

and could be made operational. May be developed for charter or sale, subject to prior commitments. **U.S. Gulf Coast.**

**File: TG34121 Tug - Twin Screw:** 100.0' loa x 26.8' beam x 9.7' depth x 14.60' loaded draft. Built in 1967 by Main Iron Works; Houma, LA. Rebuilt: 2003. U.S. flag. GRT: 188. ABS Coastwise Loadline. Expired Dec 2016. FO: 38,000g. FW: 1,400g. Winch: Almon Johnson. Wire: 2,000' x 2". Main Engines: 2 x CAT 3516 total **3,420BHP**. 2 - 88" x 72" FP props on Stainless steel shafts. Repowered from CAT D398TAs in 1995. **Bollard Pull: 75,530lb**. Gensets: 2 - 40kW / John Deere120vAC 60Hz. Firefighting: Fixed CO2 in engine room. 8 crew in 4 cabins. Formerly fitted with an upper pilothouse / removed in 2017 with vessel engaged in ship docking duties thereafter. 22' 7" height of eye, with air draft 44'. 8 person life raft. 1,200' 9" circ. Emergency hawser. Normally operates with crew of 5. Reportedly in good condition, being used as a standby boat. Loadline due for renewal and no COI yet. **U.S. Northeast.**



# Marcon International, Inc.

## Tug Boat Market Report – May 2022



**File: TG32246 Tug - Azimuthing:** 114.3' loa x 31.5' beam x 13.8' depth x 10.50' loaded draft. Built in 1975 by Sagami Shipbldg Co; Yokosuka, Japan. Egypt flag. GRT: 291. ABS +A1, Towing, AMS, Coastwise. Laid up, actively classed. Docking, Annual & Special Surveys overdue May 2013. FO: 42m3. FW: 35m3. Winch: 60T brake fore & aft. Main Engines: 2 x Niigata 8L25BX total **3,200BHP**. Last Overhauled: 1992. 2 - 2,000mm Niigata ZP-3A props. **45.8T bollard pull astern**. Total working hrs: 31,500. **Bollard Pull: 50.2T**. Speed about 13.8kn. Pumps: FO, FW, Bilge and LO. Gensets: 2 - 100kVA / MWM 225vAC, 2 - 17.5kVA / MWM 230VAC 60Hz 3Ph. Firefighting: 2 - 240m3/hr pumps. Quarters: 3-1 & 1-7 berths. Galley. Two 30 person life rafts. Inviting best, outright offers on an "as is, where is" basis. **Mid East**.

**File: TG30151 Tug - Twin Screw:** 126.0' loa x 34.0' beam x 16.0' depth x 13.70' loaded draft. Built in 1977 by McDermott Shipyards; New Iberia, LA. U.S. flag. GRT: 198. ABS Loadline expired April 2020. FO: 115,000g. FW: 2,100g. Winch: Markey double drum. Wire: 2 x 2,200' 2". Main Engines: 2 x EMD 12-645E6 total **3,000BHP**. Last Overhauled: 12/2002. 2 - FP props on Stainless steel shafts. Kort nozzles. Nautican nozzles fitted in 2003. **Bollard Pull: 35T**. Speed about 13kn free. Gensets: 2 - 115kW. AirCon. Galley. Foc'stle bow. Not officially on the market, but may be developed for sale. **U.S. West Coast**.



**File: TG22131 Tug - ATB - Twin Screw:** 110.5' loa x 34.1' beam x 13.1' depth x 12.80' loaded draft. Built in 1976 by Allied Shipbuilders; Vancouver, BC. Canada flag. GRT: 395. Transport Canada Near Coastal Class 2. Annual Safety Inspection due Mar 2023; Drydock due Jan 2023. Dwt: 250T. 46.5m2 clear deck. FO: 221m3. FW: 16.9m3. Winch: Burrard HF-D double drum. Line Pull: 24.7T. Wire: 760m x 44.5mm. Main Engines: 2 x CAT D399TA total **2,250BHP**. 2 - 83.3" x 79.3" FP props. Kort nozzles. **Bollard Pull: 27.2T**. Speed about 8-13kn on 5.77-8.46T. Gensets: 2 - 125kW / CAT 3306T 480v 60Hz 3ph. Firefighting: 682Lpm fire / ballast pump. 10 in 9 cabins. AirCon. Galley. Fitted with upper pilothouse in 2005. Formerly LR 100 A1 Tug Ice Class 1 Arctic Type A (discontinued). Hydraulic towing pins with 12" roller. Exclusively for sale via Marcon. **Canada West Coast**.

**File: TG21093 Tug - Twin Screw:** 90.0' loa x 32.0' beam x 11.2' depth x 6.00' light draft x 8.50' loaded draft. Built in 1982 by Dakota Creek Ind.; Anacortes, WA. U.S. flag. GRT: 147. USCG COI Sub. M exp. 01 Sep 2025. FO: 60,000g. FW: 4,000g. Winch: Single drum Smatco. Wire: 1,900' x 1 3/4". Main Engines: 2 x CAT 3512 total **2,110BHP**. 2 - 4-blade FP props. Kort nozzles. Bowthruster. **Bollard Pull: 23.5T**. Gensets: 2 - CAT 3304. 4 - 2 man cabins and 2 heads. Galley. Steel hull / aluminum house construction. Shaft Brakes. Push knees forward. Formerly ABS + A1 + AMS Class. 77" diameter x 73' pitch propellers in kort nozzles. Flanking rudders removed in spring of 2021, but all the components left in the rudder room and they can be added back easily (flanking rudders stored at owner's shop). May be developed for sale. Recently drydocked and complete Sub M certification. **U.S. Northwest**.



**File: TG21075 Tug - Twin Screw:** 73.8' loa x 24.4' beam x 12.3' depth x 10.40' loaded draft. Built in 1996 by Damen, Holland. Foreign flag. GRT: 135. LR +100 A1, LMC Coastal Service. 27m2 clear deck. FO: 34.9m3. FW: 9.2m3. BW: 4.5m3. Winch: Ridderinkhof (20T) Hydraulic +20T tow hook. Line Pull: 60T brake. Main Engines: 2 x Cummins KTA-38M total **2,120BHP**. 2 - Lips FP props. Kort nozzles. **Bollard Pull: 23.07T**. Pumps: 1 - Cummins 6BTA diesel powered FiFi pump 1,400m3/h. Gensets: 2 - 58kW / Cummins, 440vAC, 60Hz. Firefighting: 1 - 300m3/hr monitor. 5 berths. AirCon. Galley. Dispersant - 1.5m3; Foam - 2.5m3. Damen Stantug design. **Caribbean**.

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## Tug Boat Market Report – May 2022

**File: TG21074 Tug - Twin Screw:** 73.8' loa x 23.8' beam x 12.3' depth x 10.43' loaded draft. Built in 1995 by Damen Shipyard / Tczew Stocznia SP Z. Panama flag. GRT: 135. LR +100 A1 LMC Tug, Coastal Service. Special and Docking Surveys overdue Jun 2020. In lay-up. Ex ABS. FO: 42.58m3. FW: 9.26m3. Winch: Mampaey Tow Hook (SWL 45.9T). Main Engines: 2 x Cummins KTA-38-M total **2,100BHP**. 2 - 1,900mm Bronze FP props. Kort nozzles. P/S Tailshaft Surveys due Jan 2023. **Bollard Pull: 25.4T**. Speed about 12kn free. Pumps: GS/Bilge: 2. Gensets: 2 - 50kW / Cummins 110/440vAC 60Hz. Firefighting: 500m3/h pump + monitor. Quarters: 4 crew. AirCon. Galley. Damen Stan tug 2207. National Gross Tonnage: 104.9. **Caribbean.**



**File: TG20125 Tug - Single Screw:** 122.0' loa x 29.6' beam x 16.0' depth. Built in 1940 by Beaumont, TX. U.S. flag. GRT: 298. USCG COI - Exp. May 2024. Drydock due Dec 2022. FO: 27,000g. FW: 4,000g. Winch: 1 - elect. / hyd. s/d - tow, 2 - 50T elect. / hyd. / facing. Wire: 2,000' x 2". Main Engine: 1 x EMD 16-645E6 total **1,950BHP**. 1 - 4-blade stainless steel props on 8" shafts. Raw water cooled. Repowered in 2002. Gensets: 1 - 200kW / GM 8V71, AC; 1 - 200kW / Cummins 6 CTA Tier II. Quarters: 8 berths. Steel hull. Heavily reinforced for ice service and general towing. **U.S. Great Lakes.**

**File: TG20028 Tug - Twin Screw:** 67.6' loa x 21.9' beam x 8.8' depth x 6.56' light draft. Built in 1958 by Lester F. Alexander Co./ Astivik S.A. Rebuilt: 2013. Colombia flag. GRT: 118. Class: 40.1-C-01-G Bay, Coastal, National Loadline. FO: 11,500g. FW: 20mt. Main Engines: 2 x CAT 8V 3508 total **2,000BHP**. 2 - 60" x 48" 4-blade FP props. **Bollard Pull: 20.7mt**. Gensets: 2 - 35kW / Cummins 35MCGBA. Quarters: 6 crew in 4 cabins. AirCon. Twin-Screw tug. Steel hull. Currently working in bay operations. **South America.**



**File: TG18110 Tug - Twin Screw:** 88.1' loa x 24.0' beam x 11.8' depth x 10.50' loaded draft. Built in 1948 by Alexander Shipyards / Astivik S.A. Rebuilt: 2009. Colombia flag. GRT: 186. Class: 40, 2-B-01, G, Seagoing, National Load Line. FO: 21,288g. FW: 10,000g. Stern Roller. Main Engines: 2 x GM 16V149TI total **2,000BHP**. 2 - FP props. Keel Coolers. Originally powered by twin GM8-268As 925HP each. Gensets: 2 - 75kW / GM 671. Quarters: 4. AirCon. Rebuilt at owner's shipyard. Welding machine. Main engines were repaired at the end of 2015. Two 2,500dwt ocean deck barges also available. See DB19768 and DB19769. **Caribbean.**

**File: TG17094 Tug - Twin Screw:** 98.0' loa x 27.6' beam x 10.6' depth. Built in 1965 by Barker Barge; Lockport, LA. U.S. flag. GRT: 127. USCG COI Sub Ch. M Exp Aug 2023. FO: 51,400g. FW: 10,000g. Crane: 10,000lb. Winch: Markey TYS-32D single drum + 2 Beebe aft. Wire: 1,800' x 1.75". Main Engines: 2 x CAT D398B total **1,700BHP**. 2-FP 98" x 62" stainless steel props on 9" shafts. Abt. 11,027hr on M/Es since last full overhaul. Gensets: 2 - 60kW / GM6-71. Quarters: 7 berths. AirCon. Galley. Available for time or BBC, short or long term lease or will consider outright sale. Sub Chapter M Compliant. Working. **U.S. Northwest.**



**File: TG14103 Tug - Twin Screw:** 101.7' loa x 27.9' beam x 12.5' depth x 9.84' loaded draft. Built in 2002 by Piasau Slipways Sdn Bhd; Miri, Malaysia. Singapore flag. GRT: 271. NK NS(Tug) MNS, LSA, RCF, Tug. Special Survey due Jun 2022. Docking overdue Dec 2020. Dwt: 191mt. FO: 200mt. FW: 80mt. Winch: Single drum & 25T tow hook. Main Engines: 2 x CAT 3412C-TA total **1,442BHP**. 2 - FP props. Kort nozzles. P/S Tailshaft Surveys due Nov 2021. **Bollard Pull: 20mt**. Speed about 11kn free. Gensets: 2 - 62.5kVA Stamford / Perkins 4.235 415vAC 50Hz 3Ph. 12 crew in 5 cabins. Galley. Last Annual Survey completed 25 Sep 2019 and docking for class 29 Dec 2017. **Southeast Asia.**

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Details believed correct, not guaranteed. Offered subject to availability.

# Marcon International, Inc.

## Tug Boat Market Report – May 2022

**File: TG13060 Tug - Twin Screw:** 68.9' loa x 26.3' beam x 13.1' depth x 7.05' light draft. Built in 1982 by Lester F. Alexander Co. / Astivik S.A. Rebuilt: 2013. Colombia flag. GRT: 72. Class: 40.1-C-01G Bay, Coastal, National Loadline. FO: 15,000g. FW: 20mt. Main Engines: 2 x Cummins QSK 19-M total **1,320BHP**. 2 - 54" x 40" 4-blade props. **Bollard Pull: 14.5mt**. Speed about 14.5mt. Gensets: 2 - 35kW / Cummins. Quarters: 6 crew in 4 cabins. AirCon. Twin-screw tug. Steel hull. Currently working in bay operations. **South America.**



### Worldwide Number of Tugs

While information in *IHS Fairplay Sea-web* only covers “sea-going” vessels over 100GRT, there are many tugs either under that tonnage or in inland service. According to Sea-web, as of 10 May 2022, there were 20,772 “sea-going” tugs over 100GRT worldwide, up from 20,222 (2.72%) and 18,697 (11.71%) in May 2021 and 2017, respectively. Total horsepower is 56,450,589BHP, up 1,311,291BHP (2.38%) over the past year. Even considering flags of convenience, the largest national fleet of tugs over 100GRT continues to be under Indonesian flag with 5,360 tugs totaling 9,466,348BHP. The U.S., as the second largest national fleet of tugs, operates 1,479 “sea-going” tugs over 100GRT, or 7.12% of the world market, totaling 5,544,741BHP (9.82% global BHP). Average age of tugs worldwide is 22.9 years (built 2000) with the U.S. flag “sea-going” fleet at 34.8 years (built 1988). The “Unknown” flag group is 10.73% of the world market, comprised of 2,229 tugs totaling 4,150,403BHP or average 1,862BHP each with an average age of 35.2 years. This large “Unknown” group indicates to us that older, lower horsepower tugs may be falling off the radar. Five years ago, average age of the worldwide fleet was 20.8 years (built 1996). Average horsepower of the worldwide fleet over the past five years has held steady at 2,700BHP.

**Top 35 “Sea-Going” Tug Fleets by Units as Of May 2022 According to IHS Fairplay Sea-Web**

Flag	Total BHP	%	# Tugs	%	Avg BHP	Avg Age
<b>Worldwide</b>	<b>56,450,589</b>	<b>100.00%</b>	<b>20,772</b>	<b>100.00%</b>	<b>2,718</b>	<b>2000</b>
Indonesia	9,466,348	16.77%	5,360	25.80%	1,766	2010
Unknown	4,150,403	7.35%	2,229	10.73%	1,862	1987
<b>USA</b>	<b>5,544,741</b>	<b>9.82%</b>	<b>1,479</b>	<b>7.12%</b>	<b>3,749</b>	<b>1988</b>
Japan	2,825,536	5.01%	778	3.75%	3,632	2006
Korea, South	1,880,227	3.33%	597	2.87%	3,149	1997
Russia	1,533,122	2.72%	550	2.65%	2,787	1995
Malaysia	1,241,772	2.20%	538	2.59%	2,308	2006
India	1,469,734	2.60%	499	2.40%	2,945	2002
Singapore	1,220,958	2.16%	444	2.14%	2,750	2011
Panama	1,381,953	2.45%	444	2.14%	3,113	1995
Turkey	1,151,181	2.04%	322	1.55%	3,575	2007
Philippines	687,331	1.22%	290	1.40%	2,370	1983
Italy	1,108,103	1.96%	289	1.39%	3,834	1995
Brazil	1,149,206	2.04%	284	1.37%	4,047	2006
Australia	1,184,728	2.10%	278	1.34%	4,262	2004
Iran	586,568	1.04%	251	1.21%	2,337	1993
China, People's Republic Of	772,172	1.37%	244	1.17%	3,165	1997
United Kingdom	840,156	1.49%	241	1.16%	3,486	1999
Canada	728,358	1.29%	239	1.15%	3,048	1982
St Vincent & The Grenadines	957,163	1.70%	228	1.10%	4,198	2010
Nigeria	549,031	0.97%	193	0.93%	2,845	1992
Egypt	609,446	1.08%	177	0.85%	3,443	1997
United Arab Emirates	556,305	0.99%	176	0.85%	3,161	2004
Spain	664,345	1.18%	174	0.84%	3,818	1997
France	479,457	0.85%	171	0.82%	2,804	2008
Vietnam	433,770	0.77%	167	0.80%	2,597	2005
Mexico	638,620	1.13%	154	0.74%	4,147	1999
Netherlands	537,928	0.95%	153	0.74%	3,516	2005
Ukraine	280,437	0.50%	138	0.66%	2,032	1986
Greece	310,140	0.55%	136	0.65%	2,280	1983
Venezuela	442,288	0.78%	135	0.65%	3,276	1996

# Marcon International, Inc.

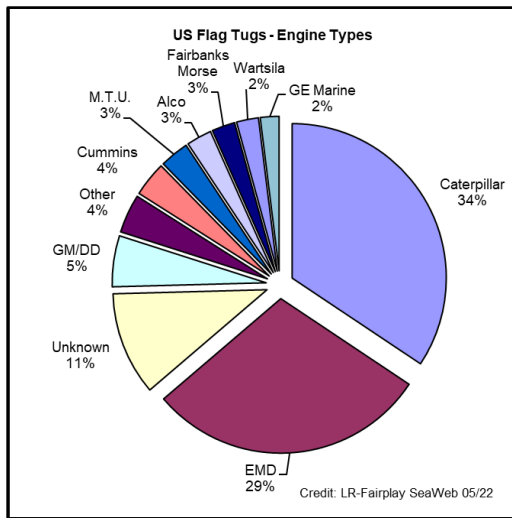
## Tug Boat Market Report – May 2022

### Breakdown of U.S. “Sea-Going” Fleet

Following is a breakdown of the U.S. sea-going tug fleet over 100GRT as of May 2022, according to **IHS Fairplay Sea-web**. As of May 2022, the U.S. domestic tug fleet consisted of 1,479 “sea-going” tugs totaling 5,544,741BHP. The U.S. flag fleet decreased by three or 0.20%, total horsepower increased by 7,531BHP or 0.14% and average age increased by seven months to 34.8 years, compared to one year ago. The U.S. fleet over 100GRT decreased by 54 or 3.52% but increased by 147,873BHP or 2.74% since May 2017. Average age increased slightly by six months from 34.2 to 34.8 years. The fleet data supports what we have witnessed in the market with older, lower horsepower units being scrapped and replaced with higher horsepower units. We continue to see units scrapped or offered for sale outside the U.S. due to post-merger fleet consolidations and the uneven economic conditions.

U.S. Sea-Going Tug Fleet Over 100GRT By BHP According to Lloyd’s Register as of May 2022

	Unknown BHP	Under 999	1000-1999	2000-2999	3000-3999	4000-4999	5000-5999	6000-6999	7000-7999	8000-8999	9000 Plus	Total
<b>Total #</b>	101	39	208	196	278	270	138	136	41	14	58	1,479
<b>Avg. BHP</b>		798	1,513	2,367	3,417	4,351	5,371	6,452	7,213	8,225	11,347	
<b>Avg. LOA</b>	87	77	85	96	104	105	106	109	144	135	156	
<b>Avg. Beam</b>	28	23	26	30	32	34	36	39	40	42	49	
<b>Avg. Depth</b>	11	9	11	13	15	16	17	18	20	21	24	
<b>Avg. Year Built</b>	1976	1958	1969	1978	1982	1996	2003	2009	1988	2007	2009	1987



Of the 1,479 U.S. tugs in Sea-web, 161 have unknown engines. 508, or 31% where type is known, are powered by CATs, 435 (27%) by EMDs, 79 (5%) by General Motors / Detroit Diesels, Cummins and M.T.U. (Rolls Royce) with 3% each, and Alco, Fairbanks Morse, GE Marine and Wartsila have 2% each of the market share. Five years ago, of 1,533 U.S. flag tugs, 504 or 37% were powered by EMDs, 451 (33%) by CATs and 105 (8%) by GM / DD. Comparing May 2022 against May 2017, EMDs lost 11 percentage points, GM / DD lost three percentage points, CATs lost two percentage points and Alcos and Cummins lost one percentage point each. In the current fleet, 284 (19%) and 812 (55%) are conventional single and twin screw, respectively. 321 azimuthing (22%), 39 triple screw (3%) and 23 Voith tractor tugs (2%) make up the remaining 27%. Compared to May 2017, today there are 81 fewer single screw, 19 fewer twin screw and 46 more azimuthing tugs in the U.S. tug fleet where over 100GT.

### Worldwide Articulated Push Tugs Fleet

According to **IHS Fairplay Sea-web**, as of 10 May 2022, there are 248 articulated push tugs above 100GT worldwide. 67.34% or 167 are U.S.-flagged with average 6,317BHP and average age of 24 years - with many older units being conversions of conventional tugs. The second largest fleet with 15 ATB tugs is attributed to “unknown flag”; followed by eight flagged in Liberia and seven each in Canada and South Korea. The remaining 44 are spread among 20 countries. The average age of non-U.S. flagged articulated push tugs is 32 years with average 4,480BHP. Of total tugs worldwide, ATB tugs make up 1.19%. However, in the U.S., articulated push tugs account for 11.29% of all tugs. Since May 2021, there is one less ATB in the U.S. but two more under foreign flag. Average age in the U.S. increased by one year to 24 years old, while outside the U.S., average year built remained at 1990. The youngest ATB fleets sail under Russian and Sierra Leone flags; Russia with a 2020-built, 3,400BHP ATB and Sierra Leone with a 2020-built, 2760BHP ATB. Jamaica has the oldest ATB, a 4,734BHP 1944-built unit.

Sea-web Articulated Push Tugs Summary as of 10 May 2022

	Total BHP	%	# Tugs	%	Avg BHP	Avg Age	Age in Years
US	1,054,969	74.41%	167	67.34%	6,317	1999	24
Foreign	362,842	25.59%	81	32.66%	4,480	1990	32

Marcon is currently tracking 130 ATB tugs worldwide with eight currently for sale, ranging in age from 20 to 49 years old. Of these eight, six are in the U.S. and one each are in Canada and Northern Europe. We continue to follow changes in ATB fleets outside the U.S. given the increased popularity of these units.



# Marcon International, Inc.

## Tug Boat Market Report – May 2022

### New Construction & Shipyard News

According to the **U.S. Coast Guard Merchant Vessels of the U.S.** database updated 11 May, 2022, 22 towing vessels are listed with 2022 build dates. These range from 25' to 136' LOA, 1,600BHP to 6,000BHP (where BHP given) vessels. In 2021, 107 towing vessels were built or completed; following 128 built or completed in 2020, 113 in 2019 and 93 in 2018.

**IHS Fairplay Sea-Web** as of May 10, 2022 reports 622 towing vessels, all over 99GT, built or to be built in 2022 or later. The 622 towing vessels represent 2,349,959HP (average 3,778HP). 111 are on order for Indonesia, 78 for St Vincent & The Grenadines, 76 for Turkey, 51 for Singapore, 37 for France, Bangladesh 28, Japan 20, 19 each for Brazil and “unknown” and 15 each for Egypt, Russia and the U.S. The remaining 138 are being built for 38 other countries.

**Eregli Shipyard** recently announced that the MED-A2575 RAmports 2500W Tug Boat, named “*Brujo*” whose registered owner is **Petrolera Transoceanica S.A – Peru**, was delivered successfully. It measures 25.20m in length, 12m in width, 4.6m in depth and it is equipped with CAT 3516-C, 2,100kW @1,600RPM engines and Kongsberg US 255S P30 FP, HD Slipping Clutch Propulsion Systems.



On May 16th, keel laying ceremony for **Main Port's** MED-A2850 order was held at **Eregli Shipyard**. The MED-A2850 is 28 x 13 meter vessel built to facilitate a crew of eight. The vessel design is from the Robert Allan RAstar 2800, Canada's Naval Architecture and Marine Engineering Company. The vessel will be built at Ereğli Shipyard in the Zonguldak region of Turkey. Its completion and delivery is scheduled for early 2023. Technical details: Length o.a.: 28.00m; Beam, moulded: 13.00m; Depth, least moulded: 5.10m; Design draft: 5.70m; Bollard pull: 50 tons; Approx. speed: 12.5 Knots; Complement: 8 Persons.

**Damen** has signed a contract with **Tidewater** for the supply of two Damen Stan Tugs 2309. The tugs will be built at Albwady Damen Sharjah and, on delivery in the first quarter of 2023, will both go on charter to a long-standing customer. The 23 meter Stan Tug 2309 is a compact and versatile harbour and coastal tug which in its standard format is equipped for towing, mooring and fire-fighting, with a bollard pull of 40 tons and approximately 45m<sup>2</sup> of deck space. Built in series to a standard design, the use of high quality components ensures low maintenance, maximum fuel efficiency, lower emissions and maximum uptime. For Tidewater and its client, these two vessels have been fitted with additional fire-fighting capability plus extra platforms and capstans aft for safe and efficient hose maintenance on deck. Tidewater is a longstanding customer of Damen, with more than 25 Damen vessels delivered to its fleet.



The Harlingen, the Netherlands, based maritime services company **ST Maine Support** has signed a contract with **Damen Shipyards** for the delivery of a new Damen Multi Cat 3313 SD workboat. Based on the proven Multi Cat 3013, the 3313 is a new addition to Damen's Multi Cat range and, while it has been developed specifically to meet the needs of ST Marine Support, the new design will be relevant to any operator looking for a multi-purpose vessel optimised for dredging operations in very shallow waters. The 33-meter Multi Cat 3313 SD has a number of features that optimise it for ultra-shallow water dredging. The most significant of these is its ability to operate in depths down to 2.00 meters, an achievement even by Damen

Multi Cat standards. The equipment package for this vessel includes substantial deck cranes fore and aft, anchor handling, towing and tugger winches, and a 40-ton A-frame. The high quality accommodation sleeps nine personnel across four cabins. Three, fixed pitch propellers in Optima Ø 1,600mm nozzles deliver 25 tons of bollard pull and a speed of ten knots. The initial build is currently underway at the Safe Shipyard in Gdańsk, Poland, after which it will be moved to Damen Shipyards Hardinxveld in the Netherlands to be completed and fitted out. The delivery is scheduled for March 2023. The ST Marine Support Multi Cats operate mainly in Europe and Africa and, as well as supporting dredging work, they undertake other projects including cable laying and anchor handling.

# Marcon International, Inc.

## Tug Boat Market Report – May 2022

The Ireland-based marine services company **Atlantic Towage & Marine Ltd** has placed an order with **Damen Shipyards** for a Multi Cat 2309, the newest addition to Damen's range of highly versatile, multipurpose workboats. Scheduled for delivery in the spring of 2023, it will play an important role in Atlantic Towage's expansion beyond Ireland/UK and into mainland Europe. The new Multi Cat 2309 will spearhead Atlantic's push into the European market, with a special focus on the fast-growing offshore renewables sector. To optimise the vessel for its role, managing director Sean Harrington has specified a larger forward deck crane AKC 185 HE4 and an aft deck crane HS AK34 HE4 from HS Marine, plus a DP1 system from Kongsberg. This brand new Multi Cat 2309 will also be the first in her range to operate with a Dynamic Positioning system. Additional, smaller customisations have been implemented to enhance its operational profile and so deliver an even better service to the company's clients. While the MuC 2309 comes IMO Tier II compliant, Atlantic Towage has selected the option that pre-prepares the engineering space for the retrofit of a Damen Marine Nox Reduction System. This uses selective catalytic reduction (SCR) technology to deliver Tier III compliance and, with the necessary space already available, can be efficiently fitted as and when required. Work will begin soon on the hull and superstructure at Damen Shipyards Koźle, after which it will be brought to the Netherlands to be fitted out.



The **Defence Materiel Administration of Sweden** ordered four ice-class tugs from **Damen Shipyards** with options for two extra, that will be equipped with numerous options. A heavy duty crane, bow thrusters, an extra strong aft winch and more will be installed on the vessels of the Damen Stan Tug 1606 design, which is extended to 17 meters length over all to fit all the options. Engines comply to IMO Tier III emission regulations. The tender that FMV (Försvarets Materielverk, the organisation that acquires all necessary equipment for the Swedish armed forces) wrote for ice class tenders was won by Damen. Standardised designs by Damen ensure this reliability and allow for the extensive range of optional equipment that the operators in the naval harbours require. Along with the options

mentioned, heating and air-conditioning, a galley with settee and toilet will complete crew safety and comfort aboard. The twin screw tug will be powered by two Volvo D13 MH engines. Exhaust silencing, SCR (selective catalytic reduction – to remove nitrogen dioxide from exhaust gasses) and soot filters will ensure IMO Tier III compliance. An auxiliary generator delivers extra electric power needed for crane handling. Bilge cooling ducts transfer engine heat into the waters from a closed loop system, without take-in of surface water in which ice particles could block the engine cooling system. The push knee on the tugs' bows will be adapted to navigating in ice. The four vessels will be built at the Albwardy Damen yard in Dubai. This yard recently completed construction of six Stan Tug 1606 vessels. The lengthened design for FMV will profit from the building experience at the yard. FMV previously ordered two Damen ASD 3010 ice class tugs, positive experience with these vessels as well as the cooperation with Damen played a role in their choice to select Damen for the construction of these four STu 1706 ICE tugs. The lengthened tugs for FMV get their own type name. The vessels are to operate in the Stockholm harbour (2x) and in Karlskrona (2x). Two more ice class tugs of the same design are on option, these are to operate in the western parts of Sweden. The Damen Oskarshamnsvärdet in the south-east of Sweden will act as a service hub for the FMV tugs. The four Stan Tugs will be delivered in Sweden by the end of 2023.



At a ceremony held on the 10th of March at **Albwardy Damen Sharjah, UAE**, two new Damen ASD (Azimuth Stern Drive) Tugs 2811 were handed over to **Rawabi Vallianz Offshore Services (RVOS)**. A joint venture between Rawabi Holding, a Saudi diversified conglomerate and Vallianz Holdings Limited of Singapore, RVOS is a Saudi leading supplier of offshore services and support in Saudi Arabia and the GCC region. The new tugs, named "*Rawabi Dreamer*" and "*Rawabi Victory*", will be contracted to RVOS client to support their marine activities. The contract for the supply of the tugs was signed by Albwardy Damen and RVOS just three months previously. The ASD Tug 2811 is a next-generation vessel featuring advanced connectivity to ensure optimal performance and efficiency. It is also designed to

meet the increasing demand for higher bollard pull in compact tugs as commercial vessels get bigger while the harbours stay the same size. At just 28-meters in length, it delivers 60 tons of bollard pull and is highly manoeuvrable.

# Marcon International, Inc.

## Tug Boat Market Report – May 2022

The Azimuth Stern Drive tug “*Plis Fos*” was launched from the vertical ship lift at the **Damen Song Cam Shipyard** on May 3rd. Following sea trials, the vessel will sail on her own keel from Vietnam to the Isle of Martinique in the Caribbean Sea, where she will be taken into service at the **Port of Fort de France** by **SOMARA**. With approximately 85 tons of bollard pull, the 27.59 meter length over all tug with 12.93 meter beam will take care of manoeuvring the largest ships that enter the Port of Fort de France. Thanks to her twin 3 meter diameter propellers in nozzles that rotate 360 degrees, the vessel also delivers almost 80 tons of bollard pull backwards. Two Caterpillar engines deliver 5,050kW combined. Thanks to exhaust gas aftertreatment, the ASD Tug 2813 is compliant to IMO Tier III emission



standards, ensuring clean operations with minimal environmental impact in the Martinique waters. This tug has extensive outfitting, including the aft winch. This makes “*Plis Fos*” a versatile vessel, capable of multiple tasks like offshore towing, salvage, ship handling in ports and more. Delivery to SOMARA at Port of Fort de France is planned in the second half of 2022.



**Sanmar Shipyards** signed its first contract of 2022 with loyal client **SMS Towage**, the UK’s largest family-owned towage company. The contract is for the purchase of “*Sirapinar XV*”, a 2020-built tugboat based on the Ramparts 2200 design from Canadian naval architects Robert Allan Ltd, which is currently operating as part of Sanmar’s own fleet. Designed for maximum efficiency in the performance of ship-handling duties for sea going ships, the 54-tons bollard pull “*Sirapinar XV*” will be the third Sirapinar series tug in the SMS Towage fleet, joining its sisters “*Pullman*”, built in 2017 and “*Lloydsman*”, built in 2019. It will become the 11th Sanmar-built tug in the fleet. Measuring 22.4m LOA with a 10.84m moulded beam, least moulded depth of 4.4m and navigational draft of 4.89m, “*Sirapinar XV*” has a free running speed of 11 knots. It is powered by a

CAT 3512C C rating main engine, producing 1,500BkW at 1,600RPM and driving standard production 360-degree azimuthing Schottel SRP 360 FP thrusters. The contract has a planned delivery date of October 2022 when the tug will be mobilized by a Sanmar crew. “*Sirapinar XV*” has been constructed in accordance with RINA requirements and has the following notations: C✕ Tug ✕ AUT-UMS, INWATERSURVEY, Unrestricted Navigation, MLC DESIGN.

Four powerful technologically-advanced new-build tugboats built by **Sanmar Shipyards** in Turkey have arrived at Karachi, Pakistan to start work for their new owner, **Port Qasim Authority** (PQA). The Kocacay series tugs, with bollard pulls ranging from 76 to 86 tons, are based on the exclusive-to-Sanmar RAsstar 3200SX design from Canadian naval architects Robert Allan Ltd, and have been renamed “*Gharo*”, “*Malir*”, “*Korangi*” and “*Pipri*” by their new owners. The contracts were signed at a ceremony at the Ministry of Maritime office in Islamabad, Pakistan, exactly a year ago on March 29, witnessed by Mr Syed Ali Haider Zaidi, the Federal Minister for Maritime Affairs and Mr Ihsan Mustafa Yurdakul, Turkish Ambassador in Islamabad, Pakistan. “*Gharo*”, “*Malir*” and “*Korangi*” are each powered by two 2,350kW main engines, while “*Pipri*” has two 2.525kW main engines. Each tug, known as “*Kocacay IV*”, “*Kocacay V*”, “*Kocacay VI*” and “*Kocacay VII*” while under construction at Sanmar’s state-of-the-art purpose-built shipyards in Turkey, have a Loa of 32.00m, moulded beam of 13.00m, moulded depth of 6.00m and are designed for a crew of up to 10. They each have tank capacities of 145m3 of fuel oil and 25m3 of fresh water. All four new Sanmar tugs all benefit from the unique sponsored hull form from Robert Allan Ltd, which has been proven to significantly enhance escort towing performance. The delivery of the tugs is the culmination of a project that has seen close co-operation between Sanmar and the operators PQA at every stage of the production process. Sanmar will continue to offer PQA its unrivalled after sales technical services.



A major deep-water seaport on the Arabian Sea, Port Qasim is the largest industrial zone in Pakistan with more than 400 industrial and commercial units spread over 15,474 acres.

# Marcon International, Inc.

## Tug Boat Market Report – May 2022

**Sanmar Shipyards** has signed a deal to deliver the latest updated version of its best-selling RAmports 2400SX series of tugboats to family-owned operator **Mackenzie Marine and Towage Pty Ltd** based in Esperance, Western Australia.

MMT Managing Director Sean Mackenzie is delighted with the quality and cutting edge features of the tug, which includes a rear winch, fire fighting capability, and accommodates Tier III compliance technology, and continues his vision of providing innovative towage solutions for port customers and Southern Ports.

Based on an exclusiveto-Sanmar RAmports 2400SX MKII design from renowned Canadian naval architects Robert Allan Ltd, the ASD tugboat is the modernized and updated version of the flagship Bogacay RAmports 2400SX Class. Measuring

24.4m x 12m x 5.45m and powered by two Caterpillar CAT 3516C main engines, each achieving 2,100kW at 1,600RPM and driving US255 FP 2.6m propellers, the tug can achieve an impressive 70 tons of bollard pull. The tug, known as “*Bogacay LI*” while under construction in Turkey where Sanmar operates three purpose-built shipyards, is scheduled to be delivered during the fourth quarter of 2022.



**Sanmar Shipyards** has delivered a new-build TRAKtor-Z 2500SX class tugboat to **Safi Maritime Services** in Turkey, designed for maximum efficiency in both harbour ship-handling and towing duties. With- an impressive bollard-pull of 74 tons, it is the most powerful tug that Sanmar has delivered to the expanding port. Powered by two high speed, electronically controlled CAT 3516C HD D marine diesel engines, each achieving 2,100kW at 1,600BHP the tug, known as “*Delicay XII*” while under construction at Sanmar’s purpose-built state-of-the-art shipyards in Turkey, has been re-named “*Safi-14*” by its new owners. Designed exclusively for Sanmar Shipyards by Canadian naval architects, Robert Allan Ltd, “*Safi-14*” measures 25.3m overall with a moulded beam of 12m, least moulded depth of 4.46m and approximate extreme draft of 6.55m. Tank capacities include 83.9ltrs of fuel oil and 12.3ltrs of fresh water. “*Safi-14*” is the fifth tug

delivered to Safi Maritime Services by Sanmar Shipyards and follows the 60-tons bollard pull ASD tugboats “*Bedia Safi*” and “*Celal Safi*” delivered in 2016 and the 30-tons bollard pull Twin-screw tugboats “*Sanmar XXXI*”, delivered in 2012, and “*Sanmar XXX*” delivered in 2011. On board power on “*Safi-14*” is provided by two identical CAT C4.4 diesel generators with operating frequencies of 50Hz, continuous services ratings of 99ekW and output voltages of 400 volts. The tug has FiFi 1 class fire-fighting capability, with its one main fire pump driven through clutched flexible coupling aft of one of the main engines, producing approximately 2,700m<sup>3</sup>/hour of water.

**SAAM Towage** continues to fortify its fleet. A recent acquisition is a new tug, the “*SAAM James Point*”, that arrived in Vancouver, Canada after completing its loading operation onto the cargo ship “*BBC Moonstone*” in Halong Bay, Vietnam. SAAM Towage Technical Manager Pablo Cáceres remarked that “*this state-of-the-art DAMEN tug has technology that reduces environmental impact and is highly maneuverable thanks to its size, innovative hull design, maneuver winch settings and installed capacity, making it a true contribution to our operations in Canada.*” The new Damen 2312 tug is named after respected

Musqueam Point Family Patriarch, James Point. Born shortly after confederation, he was a fisherman, who worked the Fraser River, and up and down the coast. He was a well know lacrosse player in his youth. “*The Point Family feel that honoring great*

*leaders/servants of the Musqueam people, such as James Point, is a very respectful way for SAAM Towage to recognize Musqueam, to acknowledge our historical presence in the waters of our territory, including the Lower Mainland/Southwest corner of British Columbia, and to celebrate our successful business relationship with Saam Towage*” concluded the Director of Business Development of the Musqueam Capital Corp, Jay Means. “*SAAM Towage is excited to add this innovative design to our Vancouver fleet. The characteristics of this tug design will complement the various berth configurations in Vancouver Harbour. We look forward to putting the tug to work with our local crews to enhance the marine safety system in Southern British Columbia*” said the VP Operations and Indigenous Relations Officer of SAAM Towage, Mark Bingham. Featuring an innovative DAMEN ASD2312 design, this tug was acquired from the Dutch company **DAMEN** and built at its Song Cam shipyards in Vietnam. Measuring 23 meters long and 12 meters in beam, it boasts 70-ton bollard pull capacity, Kongsberg azimuth thrusters and two CAT 3512C IMO Tier III main engines, which enables it to operate in emissions control areas (ECA) since it meets standards from the International Maritime Organization for nitrogen and sulfur oxide emissions.



# Marcon International, Inc.

## Tug Boat Market Report – May 2022



**SAAM** achieved a new milestone for its Towage Division after signing an agreement with the Brazilian company **Starnav** to acquire 17 tugs currently operating in Brazil. The deal also involves the purchase of four additional tugs presently under construction. *“This agreement, one of the largest transactions in SAAM’s history, enables us to continue growing in this market and broaden our service offering in order to reinforce our position as the towage industry’s leading operator in the Americas and one of the largest in the world,”* explained SAAM CEO Macario Valdés. The transaction was valued at US\$150 million for the 17 active tugs, all state-of-the-art, flexible, high-capacity vessels. Another US\$48 million will be disbursed for four tugs under construction. Once regulators sign off

on the deal, SAAM Towage Brazil will take over the debt for the operational tugs and those under construction, which will be deducted from the price paid to Starnav. This deal is subject to approval from the appropriate regulators in Brazil and compliance of other conditions that are customary for this type of transaction.

**Sanmar Shipyards** has delivered a fourth Bogacay series compact and powerful tug in two years to South American operator **SAAM Towage**. Like its three sisters “SAAM Valparaiso”, “SAAM Palenque” and “Albatros”, “Bogacay XLVIII”, which its new owners have renamed “Halcon III”, is based on the exclusive-to-Sanmar RAmports 2400SX design from Canadian naval architects Robert Allan Ltd. She will be the first Sanmar-built tug to operate in SAAM Towage’s home country of Chile. Measuring 24.4m LOA excluding fender, with a moulded breadth of 11.25m, moulded depth of 4.38m and maximum operating depth of 5.6m, the Z-drive “Halcon III” is powered by two Caterpillar 3516C main engines each producing 2,100kW at 1,600RPM to achieve an impressive for its size bollard pull of 70 tons. The tug has Rolls-Royce US 255 FP azimuth thrusters. With accommodation for a crew of up to six, “Halcon III” has a free running speed of a minimum of 12 knots and carries 72,400 ltrs of fuel oil and 10,800 ltrs of fresh water. Constructed in accordance with American Bureau of Shipping (ABS) requirements, the tug notations are: A1, Towing Vessel, AMS, ABCU, UWILD, Unrestricted Service, Fire Fighting Vessel 1.



**Sanmar Shipyards** has delivered a powerful and highly manoeuvrable RAstar 2900SX tugboat to South American towing giant **SAAM Towage**. Renamed “Mataquito II” by its new owners, the new-build ASD Z-drive tug will work in Chile. “Mataquito II” is the fifth tug that Sanmar has delivered to SAAM. Based on the exclusive-to-Sanmar RAstar 2900SX design from Canadian naval architects Robert Allan Ltd, “Mataquito II” was known as “Bogacay XII” while under construction at Sanmar’s purposebuilt state-of-the-art shipyards in Turkey. With a 29.40m LOA, moulded breadth of 13.30m, moulded depth of 5.50m and maximum operating draft of 6.30m, “Mataquito II” is powered by two Caterpillar 3516C marine diesel engines

complying with IMO Tier II emission standards, each producing 2,525kW at 1,800RPM. Twin Kongsberg US255FP Azimuth Thrusters enable impressive bollard pulls of 80 tons and a free running speed ahead of 13 knots. Tank capacities include 160m<sup>3</sup> of fuel oil and 18.6m<sup>3</sup> of fresh water. With a crew of up to eight persons, the tug benefits from the designer’s radical sponsoned hull form, which has been proven to provide significantly enhanced escort towing and seakeeping performance. As well as towage, the tug has also been designed for fire-fighting, pollution response support and salvage operations within a port. “Mataquito II” has been classed by ABS, A1, AMS, Towing Vessel, Escort Vessel ABCU, FFV 1, UWILD, QR, Unrestricted Navigation.

**Sanmar Shipyards** has delivered another powerful low emission tugboat to South American towage giant **SAAM Towage**. Known as “Bogacay L” while under construction at Sanmar’s purpose built modern shipyards in Turkey, the tug has been renamed “SAAM Condor” by SAAM Towage. It will operate in Peru. Like five of the six tugs delivered to SAAM Towage in the past two years, “SAAM Condor” is based on the exclusive to Sanmar RAmports 2400SX design from Canadian naval architects Robert Allan Ltd. Like its sisters, the 24m tug has a bollard pull of 70 tons. “SAAM Condor” has been designed and built with operational efficiency in mind as part of Sanmar’s ongoing initiative to increase sustainability in the tug and towage industry and to reduce and eventually eliminate any negative impact on the environment.



# Marcon International, Inc.

## Tug Boat Market Report – May 2022



“VB Condor” and “VB Castor”, two RAmports 2500-CL ship handling tugs recently completed by **Cheoy Lee Shipyards**, are on their way to Panama where they will commence operations for **Boluda Towing**. As with all RAmports series vessels, the hull has been optimized for maximum thrust and bollard pull while maintaining excellent maneuvering and sea-keeping. A half-raised forecastle deck helps to keep the working deck safe and dry, while a gently rounded deck line in plan ensures the tug can safely and easily come alongside and distance itself from an escorted ship at speed. Most importantly, the characteristic double chine stern unique to Robert Allan Ltd. designs ensures that the tug can run astern at high speeds and maintain good control, directional stability, and a dry deck. The

relatively new RAmports 2500-CL design is highly flexible allowing for a multitude of deck machinery arrangements,

outfitting choices such as off-ship firefighting, and powering options up to 75 tons bollard pull. “VB Condor” and “VB Castor” have been outfitted to Boluda’s specific requirements with a split drum winch and dual aperture staple on the foredeck, a towing hook and capstan on the aft deck, FIFI ½ firefighting capability, and a propulsion system delivering 50 tons bollard pull at full power. The “VB Condor” and “VB Castor” were constructed to Lloyd’s Register requirements with the following notation: ⚡100A1 Tug, ⚡LMC, ⚡UMS, IWS. Particulars of the “VB Condor” and “VB Castor” tugs are: Length overall: 25.4m; Beam, moulded, extreme: 11.8m; Depth, moulded (hull): 4.60m; Draft, Full Load: 4.79m. Tank capacities are: Fuel oil: 91m<sup>3</sup>; Potable water: 11m<sup>3</sup>; Foam: 5m<sup>3</sup>. The vessels’



accommodations are outfitted to high, MLC compliant standards for a normal operating crew of up to 8 personnel. The Master and Chief Engineer cabins are located on the main deck with three double crew cabins located in the lower accommodations. Main propulsion for the tug comprises a pair of CAT 3512C diesel engines, each rated at 1,500kW at 1,600RPM, and each driving a Schottel, SPR 360 fixed pitch Z-drive units, in ASD configuration. The electrical plant comprises two identical Caterpillar C4.4 diesel gen-sets each with a power output of 86ekW. FIFI ½ Firefighting capability is provided through FFS Pump model SFP 250 x 350 XPC driven off the port main engine delivering water to a single 1,200/300m<sup>3</sup>/hr water/foam monitor. Ship handling fenders at the bow consists of an 800 x 400 cylindrical fender with 480 x 300mm “W” block fendering below. A 300 x 300 hollow “D” fender provides protection at the main deck sheer line and along the knuckle, and 480 x 300mm “W” block fendering is used at the stern. “VB Condor” and “VB Castor” are Boluda’s first deliveries of the increasingly popular RAmports 2500-CL tugs from Cheoy Lee Shipyards but will almost certainly not be their last.



On May 5, 2022 a steel cutting ceremony was held by **Cheoy Lee Shipyards** at their Hin Lee facility in Zhuhai, China for the first Robert Allan Ltd. designed RAstar 4200-DF for **Hongkong United Dockyards Limited**. The tug is the first of two vessels which will serve as a standby vessel for the first offshore LNG terminal in Hong Kong. The tugs will provide stand-by services, FSRU emergency towing, assistance with berthing LNG carriers, transport passengers and equipment, firefighting, oil recovery and FSRU crew rescue services to the LNG Terminal. These tugs are the first dual fuel variants of the existing RAstar 4200 vessel design which just entered service in Mozambique. They are designed to maximize operations on LNG and to be able to bunker LNG directly from the jetty.

**Svitzer**, leading global towing provider and part of **Maersk**, announced another extension of its current contract with the **Suez Canal Authority** (SCA) to include two additional tugs to service the Suez Canal. Svitzer started operating in the Suez Canal in late 2019 with the two tugs “Svitzer Port Said 1” and “Svitzer Port Said 2”, providing towing services to the SCA out of Port Said. In December 2021, the two tugs were joined by sister vessels “Svitzer Suez 1” and “Svitzer Suez 2” and from end May 2022, two additional tugs will join the fleet in the Suez Canal. One will be operating out of Port Said and one out of Port Suez. Turkish tugboat builder **Med Marine** will deliver the two vessels, both RAstar 2800 75 tons bollard pull tugs with firefighting capabilities and escort notation, designed by Robert Allan Ltd. The newest tugs’ specifications include: Length o.a.: 28.40m; Beam: 13.00m; Depth: 5.40m; Draft baseline: 4.10m; Draft extreme: 5.70m; GRT: < 500; Speed: 12 knots (approx.); Main engines: Caterpillar 3516C/ 2 x 2,100kW @ 1,600RPM; Emission standard: IMO Tier II; ASD Propulsion units: 2X Kongsberg US 255S FP 2800 mm DIA with slipping clutch for FIFI 1; Accommodation: 10 people with MLC Compliant.



# Marcon International, Inc.

## Tug Boat Market Report – May 2022



**Sanmar Shipyards** delivered a powerful and highly manoeuvrable new build RAmports 2400SX class Z-drive tug to global towage giant **Svitzer**, which will join its operations in the Dominican Republic. “*Svitzer Rivas*”, known as “*Bogacay XLVI*” while under construction at Sanmar’s purpose-built shipyards in Turkey, is the 27th tugboat that Sanmar has delivered to the world’s largest tug operator. It is based on the exclusive-to-Sanmar RAmports 2400SX design from Canadian naval architects Robert Allan Ltd. With a LOA of 24.4m, moulded breadth of 11.5m and moulded depth of 4.38m, “*Svitzer Rivas*” is powered by two Caterpillar 3516C marine diesel engines each producing 2,350kW at 1,800RPM to drive Kongsberg US 255S FP azimuth thrusters, “*Svitzer Rivas*” can achieve a bollard pull ahead in excess of 80 tons and has a minimum free running speed of 12 knots. The popular technologically advanced RAmports 2400SX class tugs have been widely praised for their overall design, particularly for their manoeuvring, sea-keeping and stability performance. The design is based on an intended low-manning operation with a high standard of machinery automation. Deck equipment on “*Svitzer Rivas*” includes a DMT TW-E250kN frequency controlled electrical drive double drum towing winch with tension and length indication, constant tension. Tank capacities include 74,200ltrs fuel oil and 10,800ltrs fresh water. The vessel has been constructed in accordance with American Bureau of Shipping (ABS) requirements for the following notation: ✕A1, ✕AMS, FIFI 1, Towing Vessel, MLC Compliance, ✕ABCU, UWILD, QR, Unrestricted Service.

**Smit Lamnalco** awarded a construction contract to **Uzmar**, Turkey for three RAStar 4200 ASD tugs in 2019. The three purpose-designed and built tugs “*SL Ibo*”, “*SL Matemo*” and “*SL Macaloe*” have now been successfully completed. These tugs are the first RAStar 4200 design vessels used for terminal support and have been outfitted specially for these operations.

These new tugs are specifically designed to be operated in the offshore area near the northeast coast of Pemba, Mozambique. The three tugboats will be working together with one multi-purpose vessel as a fleet in support of FLNG operation, providing berthing and unberthing service to LNG carriers and condensate tankers, and as a holdback tug during cargo transfer operations. They are designed to have good seakeeping and are capable of being operated performing the berthing and unberthing services in open water. The tugs are very powerful with bollard pull of up to 93 tons ahead. The tugs are also designed to the requirements of a standby vessel and have the BV notation of Standby Rescue of 20 Survivors. Key particulars of the RAStar 4200 series are: Length, overall (excluding fenders): 42.0m; Beam, moulded: 16.0m; Depth, least moulded: 6.62m; Maximum draft (navigational): 7.0m; Gross tonnage: 1,227; Main tank capacities at 100% are: Fuel oil: 353m<sup>3</sup>; Potable water: 114.2m<sup>3</sup>; Recovered oil: 47.0m<sup>3</sup>. The tug was designed and constructed to the following Bureau Veritas Notation: I ✕ Hull, ✕ Mach, Tug, Fire-Fighting 1 with water spray, Oil Recovery Ship Second-Line, Standby Rescue (20 Survivors), ✕ AUT-UMS, Unrestricted Navigation, Cleanship, IWS, Green Passport. The vessels have been designed to have a full height forecastle deck with one tier of deckhouse above the forecastle deck and below the wheelhouse. They have each been outfitted for an operating crew of up to 12. The crew cabins, galley and mess are spaciouly arranged in deckhouse and forecastle deck. The cabins are isolated from machinery space which provides quiet and comfortable living spaces for crews. A gym and accommodation for rescued survivors are arranged in lower deck. The tugs have been outfitted for safe and efficient performance of ship handling. The deck machinery comprises a Brattvaag escort winch and two hydraulic vertical anchor windlasses at the bow. The escort winch is spooled with a high-performance synthetic towline on each drum. On the aft deck, a towing hook, tow pin and two tugger winches are provided. An aft towing winch is also provided for “*SL Macaloe*”. In addition, a deck crane is also provided for deck cargo handling. The aft deck is designed to load 100t of deck cargo. A U-tube anti-Roll Tank is incorporated and arranged to significantly reduce roll motions and improve the sea keeping performance in offshore operations. Main propulsion for each tug comprises of a pair of Anglo Belgian Corporation (ABC) 12V DZC-166-1000, IMO Tier II certified diesel engines, each rated 2,900kW at 1,000RPM, driving a Kongsberg US 35CP Z-drive unit with 3.0m diameter propeller in a nozzle. In addition to the main propulsion the tug is also fitted with a drop down azimuthing bow thruster, electric motor driven Kongsberg UL 601, with 1,300mm diameter fixed pitch propeller. The electrical plant consists of three identical Caterpillar C18 ship service generators all able to operate in parallel. Each set has a power output of 410kW at 50Hz. The vessels are also fitted with a Caterpillar C4.4 emergency generator. The tug has extensive ship-handling fendering, consisting of a cylindrical bow fender of 1 meter diameter at the forecastle deck level and W-block fenders at the stern, with D-fender installed along the sheer lines at the forecastle deck and main deck. This series of vessels achieved the following trial results: Bollard pull, ahead: 93 tons; Free running speed: 14 knots.



# Marcon International, Inc.

## Tug Boat Market Report – May 2022



**UZMAR Shipyard and Robert Allan Ltd** have signed an agreement to design and build a new series of methanol-fuelled tugboats. These new designs, exclusive to UZMAR, represent a new generation of lower emission tugs that its owner clients are demanding to meet CO2 reduction targets. The name of the methanol powered tugboat series will be unveiled soon by UZMAR and Robert Allan Ltd. The agreement was signed for four new designs between UZMAR CEO Mr. Ahmet Noyan Altuğ and Robert Allan Ltd CEO Mr. Mike Fitzpatrick over a video call on April 28. The new series will have improved energy

efficiency and will be able to generate a significant amount of annual CO2 emissions savings. The methanol fuelled series will have LOA between 26 meters to 32 meters and include one tractor tug design. Mr. Altug stated; *“According to our research that has been ongoing for more than five years, our team believes that within the alternative fuels to fossil fuels, the most applicable and efficient choice for tugboats is methanol. With our long-standing camaraderie and mutual understanding with RAL, we always overcame challenging projects with great success. Signing contracts for this new methanol-powered design series exclusive to UZMAR is a step toward a new era for all of us. We aim to start building the tugs in the last quarter of 2022, and we will reveal the specifications in the following days.”* UZMAR is planning to replace all the tugboats in its fleet with eco-friendly newbuilds and offer the global market a solution for their needs for sustainable lower emission vessels.

**UZMAR Group** of Turkey and **Augustea Gran Colombia**, part of **Rimorchiatori Mediterranei SPA**, recently signed a deal for the delivery of two RAsstar 3200 series enhanced tugboats with 32m LOA and 81 tons of BP. RAsstar 3200 series tugboats were designed by Robert Allan Ltd. and built by UZMAR Shipyard in 2019. The tugboats were on service at UZMAR’s National Fleet at Ambarlı port, Istanbul for ship-handling, coastal towing, general-purposes, or escort duties. The signing ceremony was held at UZMAR Head Office in Istanbul on 12 September 2021. The documents were inked by Mr. A. Noyan Altug, Chairman of UZMAR and Massimo Peluso, Augustea Gran Colombia Managing Director with the UZMAR sales team, and senior project and contract managers' physical presence. Giacomo Gavarone, Rimorchiatori Mediterranei Commercial Manager and Mr. Andrea Mignone and Mr. Maurizio Re attended the ceremony virtually. Mr. Noyan Altug stated that; he is very proud that Rimorchiatori Mediterranei Group and Augustea Gran Colombia chose UZMAR built and operated tugboats to expand their fleet and strongly believe their cooperation will only improve and grow in the following years with different projects. Having built more than 200 vessels and delivered them to more than 22 countries on 6 continents, UZMAR Shipyard has proved itself as the go-to builder of the highest quality tugs and workboats along with a various range of high-performance vessels. Previously operated in UZMAR Fleet, the Anka sisters will be named *“RR Macondo”* and *“RR Santa Marta”*. Augustea Gran Colombia’s state-of-the-art tugboats will be serving their duties in Colombia. Once delivered, Augustea Gran Colombia will highly strengthen its presence in the Colombian market with the might of RAsstar 3200 design tugboats as the tugboats will be the most powerful tugs in the country. Rimorchiatori Mediterranei is a leading harbor towage operator, incorporated under Italian law, and it is part of the Rimorchiatori Riuniti Group. Rimorchiatori Mediterranei operates in 18 major Italian and international ports through over 100 tugs and employs c. 600 people. Rimorchiatori Mediterranei has always been proud of staying on top of the service it provides and has always been successfully comply with the latest safety developing standards.



**UZMAR**, the private pilotage and tugboat company with Turkey’s strongest and most modern fleet, sent off its newly built tugboat *“Alsancak 20”* to her service area, at **Ambarlı Port**. The new Ramparts 2500W series tugboat with a length of 25 meters and a bollard pull of 80 tons will begin her duty in the first days of 2022. UZMAR is serving with nine vessels at Ambarlı Port which is the Turkey’s largest port in terms of container volume. Main particulars of the *“Alsancak 20”* are: dimensions 25.2m (excluding fenders) LOA by 12.0m breadth moulded by 4.60m depth moulded; notations: BV 1, X HULL, .MACH, Tug, FI-FI 1 with Water Spray, Unrestricted Navigation, .AUT-UMS; driven by two CAT 3516C 2,350kW @ 1,800RPM main engines, turning KM US255CP 2.8m thrusters. The vessel has FIFI 1; crew capacity of 6 persons; can achieve 12 knots; and with tank capacities of: FO 90.6m<sup>3</sup>, FW 16.6m<sup>3</sup> and foarm 7.10m<sup>3</sup>.



# Marcon International, Inc.

## Tug Boat Market Report – May 2022



The following are select tug news releases for **Jiangsu Zhenjiang Shipyard** between January and May 2022. On 14th January, 2022, one unit of 5,000PS ASD Tugboat, which is named "*Tai Xing Xiao Tuo 1*" (top left) built for **Taixing Runtai Port Co. LTD**, was launched successfully. On 30th January, 2022, "*Zhen Gang Tuo 6001*" (top right), one unit of 6,000HP ASD tugboat, built for **Zhenjiang Port Group Co., LTD**, was completed and successfully delivered. The vessel is presently a harbour tugboat with the



biggest power in China inland river. The ship is designed with overall length of 41.5m, width of 11.0m, depth of 5.0m, bollard pull (stern) of 73.9mt, bollard pull (forward) of



66.2mt, endurance of about 700nm and speed of 14.05kn. On 28th Feb, 2022, 4,400PS ASD tugboat with name "*Hu Tuo 7*" (second left) built **Shanghai Dayu** was delivered and sailed. The vessel has length of 32.5m, breadth of 11.2m, depth of 5.2m, ahead pull of 56.1mt, astern pull of 50.1mt, endurance of equal or above 800nm and speed of 12.8kn. On 18th April, 2022, 3,236kW ASD tugboat named "*Su Gang Tuo 5*" (second right) built for **Jiangsu Haifu Technological Development Co., Ltd.**,



was delivered and sailed. The vessel has length of 37m, breadth of 9.8m, depth of 4.4m, ahead pull of 56mt, astern pull of 52mt, and speed of 13.65kn. On 18th April, 2022, 3,824kW ASD tugboat with name "*Bei Bu Wan Tuo 10*" (third left) built for **Fangcheng Port**



was delivered and sailed. The vessel has length of 39.3m, breadth of 10.6m, depth of 4.8m, ahead pull of 64mt, astern pull of 59mt, endurance of equal or above 1,200nm and speed of 13.65kn. On 21st May, 2022, One unit of 5,220kW ASD tugboat built for **Jiangsu Zhitai** and named "*Zhi Tai Tuo 1*" (third right) was delivered has been successfully delivered. The vessel has overall length of 38.5m, breadth of 11.4m, depth of 5.3m, bollard pull (ahead) of 85mt, bollard pull (astern) of 76mt, endurance of 1,000nm and speed of 13.5kn. On 24th



May 2022, "*Yantian Tuo 21*" (bottom left) was designed and built for **Shenzhen Huazhou Ocean Development Co., Ltd** has sailed smoothly. It becoming the maximum power ASD tugboat with SCR denitrification unit in the domestic market. With the designed power of 5,884kW (8,000PS), the tugboat can not only be used in



port operations, but also meet the requirements of offshore towing. Equipped with SCR unit, it meets the IMO Tier III Nitrogen Oxide Emission standards, and its product technical specification and operational performance have reached the international advanced level. The tugboat's overall length is 39.00m, the width is 13.8m and the depth is 5.9m, the power of main engine is 2 x 2,942kW, forward towing force is 99mt and backward towing force is 91mt, endurance ability is  $\geq 1,000$ nm, and the speed is 14kn. It has been awarded FiFi-1 by CCS, Gd-EP(GBEC); NEC(SCRS) etc.

**Piriou** recently delivered to **Boluda France** two new units to be assigned to East Timor.

Built by Piriou Vietnam, the "*VB Likurai*" and the "*VB Fado*" recently left the Nha Be site and are on their way to their place of operation. These two 30.30m tugs which have a bollard pull of 45mt and 60mt respectively, were built to a Piriou standard design and adapted to meet the specific needs of Boluda France. These units are issued from the OST 30-Omni Stern Tug- model of the tugs range designed by Piriou. The OST 30 is a multipurpose tug developed for 'push pull' type towage and harbour assistance operations as well as deep sea operations. With a hull length of 30.3m, it is also fitted to bring assistance to vessels in access channels. This tug is equipped with two aft azimuth propellers, driven by two marine medium-speed turbocharged four-stroke diesel engines, fresh-water cooled with box cooler refrigerants. At the bridge, the ergonomics of the single-command control station and the high visibility over the entire working area and its surroundings allow the captain to manoeuvre his tug alone. In order to answer the operating conditions required by Boluda France, these tugs are equipped with several options including: Double drum fore winch; Bow thruster; A towing hook. The 60mt model is also equipped with: FiFi 1 equipment; Aft towing winch; Open bulwark with a stern roller. The OST 30 is designed to be maintained every five years with special antifouling and ICAF system. Accommodation is in accordance with ILO 2006 requirements and special attention is paid to noise reduction. Main characteristics LOA: 30.3m; Breadth moulded: 10.4m; Depth at main deck: 4.45m; Max. draught: 5.00m; Bollard pull @ 100% MCR (unit 1): 46mt; Bollard pull @ 100% MCR (unit 2): 62mt; Fuel capacity: 84m<sup>3</sup>; Fresh water capacity: 10m<sup>3</sup>; Speed: 12kn; Propulsion (unit 1): 2 x 1,425kW; Propulsion (unit 2): 2 x 1,902kW; Crew: 6; Hull/superstructure: steel.



# Marcon International, Inc.

## Tug Boat Market Report – May 2022



**Tokyo Kisen Co., Ltd.** (Yokohama-shi, Kanagawa Prefecture) and **e5 Lab, Inc.** (Headquarters: Chiyoda-ku, Tokyo) announced that on May 26, Tokyo Kisen held a naming and launching ceremony of the electric tugboat “*Taiga*”, currently under construction at **Kanagawa Dockyard Co., Ltd.** (Kobe-shi, Hyogo Prefecture). The “*Taiga*” is powered by an electric propulsion system that combines e5Lab-developed large-capacity lithium-ion batteries and a diesel engine. It is an eco-ship designed to protect the environment in areas surrounding the ports of Yokohama and Kawasaki, and also a crew-friendly tugboat, not only achieving low/zero emissions of CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>x</sub>, and particulate matter (PM) from the vessel but also reducing noise and vibration for an improved working environment. IHI Power Systems Co., Ltd. participated in the development of the tugboat as the system integrator and supplier of the ship’s Electric

Propulsion System. The “*Taiga*” is the first tugboat to adopt IHI Power Systems’ L-Drive propulsion system. The system also marks the first use of ABB’s DC Grid in Japan. In combination with the large-capacity lithium-ion batteries, it delivers higher efficiency than conventional electric propulsion systems. In addition, it can be upgraded for even greater energy efficiency by analyzing important parameters such as the charge-discharge power of lithium-ion batteries and propulsion motor output, along with fuel consumption of the diesel engine. The project team also collaborated with OSD-IMT, a group company of Damen Shipyard (the Netherlands), for concept design of the tugboat to improve the crew’s operating performance as well as living environment. Initially the team considered equipping the tugboat with hydrogen fuel cells for enhanced environmental performance, and conducted a risk assessment (HAZID analysis) in cooperation with the project partners, but decided not to adopt the cells. The “*Taiga*” is slated for completion in December 2022, and will operate mainly in the ports of Yokohama and Kawasaki as a harbor tug after delivery. In addition, installation of power supply equipment on a floating pier designed especially for the “*Taiga*” will be completed when the tug enters service. The “*Taiga*” is the second eco tugboat, following the “*Ginga*”, a diesel-electric hybrid harbor tug that was launched in the ports of Yokohama and Kawasaki on September 30, 2013.



**Robert Allan Ltd.** is pleased to announce that “*Ri Gang Tuo 1*” and “*Ri Gang Tuo 2*”, two RAMParts 3400 tugs were successfully delivered to **Ri Zhao Port**, Shandong, China in February and March of this year. An official naming ceremony was held at owner’s fleet base last week. The newly completed ASD tugs were constructed at **Rizhao Kingda Shipbuilding Heavy Industry Co. Ltd.**, designed by Robert Allan Ltd. and are to operate in Rizhao Port on the coast of the Yellow Sea, China. The newly developed RAMParts 3400 has been specially designed for owners who prefer to operate tugs with shallow draft and assist ships with low freeboards. Both owner and builder are very satisfied with the

performance demonstrated by the tugs during sea trials. Key particulars of the “*Ri Gang Tuo 1*” and “*Ri Gang Tuo 2*” are: Length, overall (excluding fenders): 34.3m; Beam, moulded: 11.20m; Depth, least moulded: 5.22m; Maximum draft (navigational): 4.61m; Gross Tonnage: 495. Main tank capacities at 100% are: Fuel oil: 105m<sup>3</sup>; Potable water: 43m<sup>3</sup>; Ballast: 43m<sup>3</sup>; Fire-fighting foam: 12m<sup>3</sup>. The tugs were designed and constructed to the following CCS Notation: ★ CSA, TUG, R2, ★ CSM, BRC. Propulsion machinery consists of: 2 x Niigata main diesel engines 6L28HX, 1,838kW; 2 x Kongsberg Z-drives, US205S P20 FP. Each of the multi-purpose tugs is outfitted with a variety of deck machinery including a hawser winch from Masada Ironworks Co. Ltd, and two windlasses. Ship-handling fenders at the bow consist of an upper row of cylindrical fenders and a lower course of W-fender. Sheer fendering consists of “D” rubbers and a smaller cylindrical fender at the stern. The accommodations have been outfitted for a crew of ten with master’s cabin, mess, galley arranged in the deckhouse and all other crew cabins located on the lower accommodation deck. There is also a provision store on the lower deck. The wheelhouse is designed with a single split type control station which provides maximum all-round visibility with exceptional visibility to the bow and side fendering, as well as operations on the aft deck. Trial results were as follows: Bollard pull, astern: 64.3 tons; Free running speed, ahead: 14.0kn.



# Marcon International, Inc.

## Tug Boat Market Report – May 2022



**Holland Shipyards Group** has developed the EDDY 24-50 E, which is in line with the previously developed revolutionary EDDY TUG series. The EDDY tugs are designed and built around three simple core criteria: safety, performance and economy. EDDY tugs have a slim hull shape, resulting in 30% lower resistance. Compared to ASD, ATD and RSD tugs, she offers higher stability, safer operations and better performance due to her low staple point and low centre of gravity. For optimum escort tug performance, the EDDY's waterline shape is a winged profile, allowing the vessel to generate lift with the hull and thus generate most escort forces. She sails intuitively and can generate BP in 360 degrees, featuring a thruster at the forward end of the vessel and a thruster aft.

Emission-free operations are not only a great way to work on sustainability, but it also has economic advantages. The OPEX will be significantly reduced over time. This is mainly due to maintenance and fuel and emission savings. All in all, this results in an estimated return on investment of 7 years. Onshore charging systems have developed rapidly and are based on the vessel's operational profile. Charging the batteries can be done in a few minutes, several times a day, or once a day over a longer period. This all depends on the operational profile. The electrification of harbour tugs is particularly interesting given that they usually operate in the same area, and charging systems are easily accessible to them. Holland Shipyards Group is a frontrunner for developing and building electric vessels. It has delivered several notable projects in recent years, especially in Norway, Germany and the Netherlands, including more than a dozen in the past two years. Most of these vessels are fully electric, such as the recent NZK series for GVB Amsterdam with an innovative shore charging system.

**Robert Allan Ltd.** is pleased to announce that **Kenya Port Authority's** new RAstar 4200, "*Mwokozi II*", has been delivered to her home port of Mombasa on January 10, 2022. The "*Mwokozi II*" is a custom design 42m, 120mt bollard pull salvage and harbour tug developed by Robert Allan Ltd., with particularly outstanding performance in manoeuvring, seakeeping, and stability. The Turkish shipbuilder **Med Marine** was contracted to build the new tugboat at its group owned Eregli Shipyard. The keel was laid on March 23, 2020, and construction was completed in November 2021. The vessel is designed to operate in East Africa and Indian Ocean regions and can undertake international salvage and towage operations involving very large vessels. The establishment of the IMO, Regional Maritime Search and Rescue Coordination Centre, within the Mombasa Port, prompted the management to recognize the need of having a sea going vessel with the capacity to perform salvage and successful search and rescue operations. The name "*Mwokozi*", means saviour and signifies the important role that the vessel will play for its owner. In recent years, the incidences of ships grounding in the Indian Ocean within Kenyan Territorial waters are becoming more and more common. Within the Eastern and Northern seaports, there isn't a country with the capacity to mount a proper sea salvage and search and rescue operation. The salvage operations will create a new revenue stream for the Kenya Port Authority and enhance their corporate image as a leading port along Western Indian Ocean Seaboard. Key particulars of the "*Mwokozi II*" are: LOA: 42m; Beam, moulded: 16m; Depth, least moulded: 6.4m; Maximum draft (navigational): 7.2m; Gross Tonnage: 1,024. The "*Mwokozi II*" was constructed to RINA rules with the following notation: RINA C ✕ TUG, AUT-UMS, Fire Fighting Ship 1 With Water Spraying, In Water Survey, Unrestricted Navigation. The vessel is SOLAS compliant for Gross Tonnage of > 1,000. Accommodations are outfitted to high, MLC compliant standards for a crew of up to 18 personnel. The Master, Chief Engineer and Owner cabins are located on the main deck with eight double crew cabins located in the lower accommodations. Main propulsion comprises a pair of CAT C280-12 diesel engines, each rated at 3,700kW at 1,000RPM, and each driving a Schottel SRP 710 Fixed Pitch, 3.4 meter propeller Z-drive. The vessel is equipped with a Schottel tunnel thruster at the bow for enhanced maneuverability. The electrical plant comprises two identical Caterpillar C 9.3 diesel gen-sets each with a power output of 200ekW. On the foredeck is a MacGregor MG HAT/GDG-30-1230U02272x2 hydraulically driven, split drum, towing winch accommodating 2 - 220 meters of 72mm diameter synthetic rope and fitted with double gypsies and warping heads. The winch is equipped with a length and tension monitoring system with load indicating display in the wheelhouse. On the aft deck, there is a MacGregor MG-HTWW-1232D10064 hydraulically driven towing winch, accommodating 1,000m of 64mm diameter steel wire rope and a MacGregor hydraulic combined shark jaws and towing pins package. The "*Mwokozi II*" is equipped with an off-ship fire-fighting system meeting class Fire Fighting Ship 1 requirements with water spray. The system was supplied by Fire Fighting Systems and comprises two main engines driven centrifugal pump type FFS SFP 250 x 350 XPH. The two monitors deliver 1,200m<sup>3</sup>/hour of water and 300m<sup>3</sup>/hour of foam. Ship handling fenders at the bow consist of upper cylindrical fender and lower "W" block fendering below. "D" fendering provides protection at the sheer line, and cylindrical fender is used at the stern. On trials, the "*Mwokozi II*" exceeded performance expectations with the following results: Bollard pull: 126mt; Free running speed, ahead: 14.7kn.



# Marcon International, Inc.

## Tug Boat Market Report – May 2022



**Med Marine and SAFEEN Group**, part of AD Ports Group' Maritime Cluster, have signed a new contract for MEDA2360 Tier III CAT E type main engine series tug. The tier III E type tug "*Er104*" will be deployed to meet the growing marine service requirements of the Group. The delivery of the tug will be facilitated in October 2022. Med Marine will equip MED- A2360 class tugboat with two Caterpillar 3512E type engines, complying with future emissions restrictions and reflecting commitments of AD Ports Group to reduce sea borne emissions. The MED-A2360 series, designed by Robert Allan LTD exclusively for Med Marine, was chosen for the third time by SAFEEN Group for its versatile, multi-purpose, compact and modern design which features efficient

ship-handling, coastal towing, and general-purpose towing capabilities The tugboat's specifications: Length: 23.00m; Beam: 10.90m; Depth: 4.40m; Draft baseline: 3.15m; Draft extreme: 5.05m; Gross tonnage: <300; Bollard pull: 60 metric tons; Speed: 13 knots; Main engine: Caterpillar 3512E; Total power: 2 x 1,771kW @ 1,800RPM; Emission standard: IMO Tier III E (Tier III ready); Azimuthing stern drive: Kongsberg US205S; Propeller: 2,400mm Dia; Shafting: Carbon Shaft; Accommodation: 6 people.

An agreement was signed between **Kenya Shipyard Limited** and **Med Marine** on March 30th. The agreement targets the construction of a MED-A3085, which is a popular design by Canada's Allan Rastar Naval Architecture and Marine Engineering firm. The vessel will be outfitted in Ereğil Shipyard in Turkey's Zonguldak region. After its delivery, the vessel will be operated by Kenya Port Authority in the port of Lamu. The MED-A3085 is a 30 meter 85mt bollard pull vessel and it can comfortably accommodate a crew of eight in its climate controlled living quarters.



**Robert Allan Ltd.** is pleased to announce that "*Mailiao 1505*" and "*Mailiao 1506*" have been delivered to the **Formosa Plastic Corp.**, Taiwan, by **PaxOcean Engineering Pte. Ltd.** in December 2021. The vessels will be operated by the Mailiao Harbour Administration Corp., a subsidiary of Formosa Plastic Corp. These identical sister ships are 31.8 meter versions of the well-proven TRAKtorV series high performance VSP tractor tugs and will replace aging tugs in the current fleet. Operating in Mailiao Port, Taiwan, the tugs will assist in berthing and un-berthing operations, provide protection/security services in the designated area, and support external fire-fighting operations.

These are the first Robert Allan Ltd. designed vessels to operate in Taiwan.

The vessels were built concurrently at PaxOcean's Shipyard in Batam, Indonesia (PT. Graha Trisaka Industri). Despite delays during construction and commissioning due to the global COVID-19 pandemic, the vessels successfully completed sea trials in May 2021. These TRAKtor 3100-Vs feature a flush main deck with crew accommodations below deck forward of the VSP compartment, and additional cabins for the Master and Chief Engineer on the deckhouse level. Twin Voith VSP 28R5/210-2 units are installed at the bow in tractor configuration, driven by medium speed resiliently mounted Niigata 6L28HX engines rated for 1,897kW at 750RPM. The wheelhouse is configured for stern first operations with the main control console located at the aft end of the house offering better visibility for the operator over the stern and to essential equipment on the aft main deck. For this reason, the stern also features a heavy duty fendering system comprised of a double row of cylindrical fenders and tires. Fire-fighting monitors are arranged on the aft bridge deck. To fulfill owner's requirements for the manoeuvrability of the tugs, Robert Allan Ltd. completed numerous CFD simulations of the tug's directional stability characteristics during the design phase. Key particulars of the TRAKtor 3100-V are: Length, overall: 31.8m; Beam, moulded: 11.48m; Depth, least moulded: 4.65m; Maximum draft (navigational): 5.20m; Gross Tonnage: 452. The tugs were designed and constructed to the following CR notation: CR100, +E Tug, CMS+, Coastal Service, BP [50], Fire Fighting Ship 1. The accommodations have been outfitted to a high standard for a crew of six. The deckhouse contains an engine watch room, the galley, lounge/mess, two officer cabins and a wet room area. The lower deck contains two double berth cabins and two stores spaces. The wheelhouse is designed with a Voith style control console which can be operated in both the ahead and astern positions. Trial results were as follows: Bollard pull, ahead: Both "*Mailiao 1505*" and "*Mailiao 1506*" exceeded the designed bollard pull of 50 metric tons; Free running speed, ahead: > 12.0kn.

# Marcon International, Inc.

## Tug Boat Market Report – May 2022

Robert Allan Ltd. is pleased to announce that on January 26, 2022, Grandweld Shipyard held a keel laying ceremony for two of total four high performance TRAKtor 2700-Z tugs, hull numbers H185 and H186. The tugs were ordered by Specialities Construction for General Trading and Contracting Company (SCC) and will be operated by Kuwait Ports Authority (KPA) in Kuwait's most important Shuwaikh Port. The tugs can perform multiple tasks including ship assist, escort, towing, firefighting, oil pollution response and others. The keel laying ceremony was attended by Jamal Abki (General Manager of Grandweld), Mubarak Al Woqayan (CEO of SCC) and BV class representatives in Dubai. Robert Allan Ltd. worked closely with the Grandweld Shipyard to develop the customized design of the previously built and well proven 27 meter TRAKtor tug series. The new TRAKtor 2700Z tugs will be powered by two Caterpillar 3512C main engines, each rated 1,678kW, driving a Kongsberg US205S P20 Z-drive, delivering a bollard pull in excess of 50mt. The vessel has been designed to the high standards of outfitting for an operating crew of up to eight. All accommodation spaces including Master and Chief Engineer's single cabins and three double crew cabins along with the galley and mess are located above main deck. The tug will be outfitted for safe and efficient performance of ship handling, escort, and harbour towing. The deck machinery comprises of DMT hydraulic single drum escort towing winch and hydraulic anchor mooring windlass/winch at the bow. The escort towing winch is spooled with 600m of high-performance FFS synthetic towline. In addition, a towing hook is provided on aft deck. The tug will be equipped with powerful FFS off-ship firefighting system with two monitors that can deliver up to 2,400m<sup>3</sup>/hour of water or 300m<sup>3</sup> of foam/water mix. The tug is protected by water spray system. The tug is also designed to assist in oil pollution response. The tug will be equipped with dispersant system and is capable of storing recovered oil in three onboard dedicated tanks. A large hold capable of accommodating necessary portable equipment along with workshop is arranged aft of Engine Room. Toimil Marine fully foldable telescopic crane with a 10-meter outreach will be fitted on the aft deck. The tugs will be built to the following Bureau Veritas Notation: I ✕ HULL, ✕ MACH, Escort Tug, Fire Fighting 1, Water Spray; Oil Recovery Ship, Second Line, •AUT-UMS; INWATERSURVEY. The vessels are expected to enter service by August 2022.



Salvamento Marítimo, dependent on the Ministry of Transport, Mobility and Urban Agenda, celebrated the keel laying of its new tugboat this morning, at the headquarters of Astillero Zamakona, in Santurtzi – winners of the tender for the construction of the ship. The event was attended by the General Secretary of Transport and Mobility, María José Rallo, the Director of Maritime Rescue, José Luis García Lena, the Deputy Government Delegate in Bizkaia, José Vicente Reyes, and the President of Zamakona, Pedro María Garaygordóbil. The laying of the keel is a symbolic celebration that marks the beginning of the construction of a ship . It will be followed by two other milestones: the launch, scheduled for February 2023, and the final delivery, in October of that same year. This new ship, for which the name has not yet been decided, is of the deep-sea

tug type, specialized in rescuing human life at sea, towing and combating pollution, and has involved an investment of 52.5 millions of euros. Its construction is part of the National Rescue Plan 2021-2024 -of the General Directorate of the Merchant Marine and Maritime Rescue-, which was approved last December and has among its most important lines the modernization of the means, with the aim of provide an effective and efficient service. The new tug is 82.35 meters long and 18 meters wide, and its accommodation area will have the capacity to accommodate 16 crew members and 26 special operations members. The new ship will include, among others, a system to improve behavior at sea by means of a passive tank, a DP-2 dynamic positioning system, a 200mt bollard pull – board pull – and a fire-fighting system. First Maritime Rescue ship prepared to operate with drones What makes it unique within the fleet is that it is the first ship that will be able to operate with drones in searches at sea. It includes a flight deck for drones of up to 9 meters and a hangar with simultaneous capacity for two drones, which improves the ability to handle all situations faced in Maritime Rescue. It is also noteworthy that, in line with the second axis of the National Plan -decarbonization and sustainability- the General Directorate of the Merchant Marine and Maritime Rescue- have sought to optimize the ship's energy consumption through a propulsion plant for ECO navigations , its propulsion It will be diesel- electric, complying with the Tier III emission regulations, and will also have an adapted electrical connection to the port.

# Marcon International, Inc.

## Tug Boat Market Report – May 2022

Carmet are excited to announce the order of a new workboat from **Groeneveldt Marine**, in the Netherlands. The 20m vessel is part of the Shipyard's successful EasyWorker series and will be delivered in July 2022! The Shipyard have been very proactive in adapting the model to meet Carmet's requirements, providing a design that is best suited to Carmet and its style of working. The workboat will be powered by two Tier III Volvo Penta engines, generating a total of 1,200BHP. The deck equipment includes a Fassi F800 crane, 40mt anchor handling winch and additional tugger winch.



**Master Boat Builders, Inc. (MBB)**, announced the delivery of a new 4,000HP tug to **Polaris New Energy**. Named "*Polaris*", this tug will be coupled with the recently delivered barge "*Clean Canaveral*", forming the largest Jones Act compliant articulated tug barge (ATB) providing LNG bunker fuel in the US. Master Boat Builders, Polaris New Energy and the ATB operator **McAllister Towing** are proud to support the advancement of this new, clean marine fuel. "*Master Boat Builders is committed to producing the most dependable and reliable tugs in the Maritime Industry, and we thank Polaris New Energy, LLC for giving us the opportunity to prove it,*" said Garrett Rice, President of Master Boat Builders. "*Polaris will be used to its full potential, helping fuel the cruise ship industry's new LNG-powered ships when they arrive in Port Canaveral later this year.*" McAllister Towing LNG Services LLC will

operate the "*Polaris/Clean Canaveral*" ATB. The Vessel was delivered to Polaris New Energy, LLC earlier this year.

US-built tugboat featuring a fully integrated hybrid electric system from **Berg Propulsion** is a high-tech win for America's fleet. A new harbor tug delivered by one of the leading workboat builders in the United States gives form to the Berg Propulsion case that the efficiency, sustainability, and performance gains of hybrid electric propulsion are optimized for this market. "*Spartan*", the latest highpower tug to join the **Seabulk** fleet, adds to a fastgrowing reference list of vessels featuring the fully integrated hybrid propulsion plant from Berg Propulsion. Already operational at Port Arthur following delivery by **Master Boat Builders**, the Robert Allan-designed RApport 3000 vessel is the first of two 90-



ton bollard pull tugs using this latest Berg package, with the second due in service in Q3 2022. In addition to Berg MTA 628 azimuthing thrusters, Berg VS3 variable frequency drives with motors, and its own hybrid control system, Berg's design, supply, and integration includes the switchboard with full power management plus control of the tug's twin Caterpillar 3512E EPA Tier 4 (2,550HP) main engines and its gensets - two CAT C18s and one C7.1. Berg's hybrid electric propulsion system includes high levels of redundancy for safety as well as the ability to switch seamlessly between operating modes with the push of a button. A vessel can run on main engines only, gensets only, or a combination of the two, optimizing energy use across the entire operating profile. A tug in transit can minimize energy consumption and eliminate main engine wear by running on a single generator set. In hybrid mode, power is



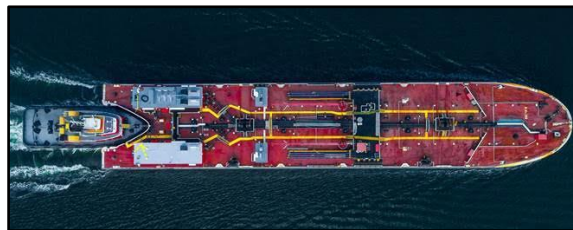
balanced between the diesel engines and electrical motors to optimize fuel consumption, maneuvering response, and bollard performance. "*During the first weeks in operation, 'Spartan' has been living up to the promises made for hybrid propulsion vessels,*" said Daniel Thorogood, President and CEO, Seabulk. "*Seabulk's commitment to improving the sustainability of its operations is represented by its investment in a new generation of vessels whose flexibility is proving that hybrid tug technology is our choice for the future.*" The solution, whose installation was managed at the yard by Berg's distributor and partner in the area, Thompson Marine, is the most advanced hybrid electric package ever delivered by Berg Propulsion. "*Thompson Marine managed the*

*details from the earliest design phase through sea trials together with Master Boat Builders, Seabulk, Berg Propulsion, and Caterpillar*" said Richard Tremayne, Marine Business Manager, Thompson Marine. "*This delivery sets down a marker that – with the right team in place - the sustainability and performance benefits of advanced hybrid electric propulsion are available to all.*" "*This has been a landmark delivery for Master Boat Builders in next generation tug construction, and a testament to the value of teamwork,*" said Garrett Rice, President, Master Boat Builders. "*The approach was collaborative throughout the design, engineering, and building phases and we look forward to completing work on the second of these innovative Seabulk tugboats later this year.*"

# Marcon International, Inc.

## Tug Boat Market Report – May 2022

**Value Maritime**, the emission-reducing tech entrepreneurs, and **Carbon Collectors**, specialists in collecting, transporting and storing CO<sub>2</sub> safely, will together perform a conceptual design study for a new fleet of tugs to be built by Carbon Collectors. Value Maritime will work together with Carbon Collectors to investigate the feasibility of capturing carbon onboard their new MGO fuelled tug vessels, using VM's unique technology to ultimately ensure that Carbon Collectors' fleet is CO<sub>2</sub> neutral from the start. Jointly, the two teams will investigate and determine: required installed power of the diesel generators; estimated CAPEX / OPEX; best discharge options for the captured CO<sub>2</sub>; and optimal solution for unloading and underground storage. Christiaan Nijst, Director and Co-Founder - Value Maritime *"This is a first for us. We've conducted many studies in relation to larger sea-going vessels but now Carbon Collectors are affording us the opportunity to apply our carbon capture expertise to tugs, extending the reach of our sustainable shipping solutions. We're excited to see how these vessels will perform with our leading technology."* Once the design is proven, Carbon Collectors aims to use Value Maritime's carbon capture module to the fullest extent. They are currently designing a custom fleet of power-efficient tugs with the construction of the first vessels scheduled to start in the first quarter of 2024. Once operational by 2026, their MGO fuelled tugs could be effectively capturing all of their CO<sub>2</sub> emissions onboard. Both parties will not only review the carbon capture abilities of the vessels but jointly look into the optimal solution for safely unloading and permanently storing the CO<sub>2</sub> underground. Haije Stigter, Technical Director – Carbon Collectors *"As a company aiming to speed up the reduction of CO<sub>2</sub> emissions, we also want to make sure that our own fleet contributes by becoming carbon-neutral as fast as possible. For years to come, carbon capture and storage seems the only feasible option in the short and medium term. We are excited to be able to help VM further develop their innovative technology in this field."* A Clean Circular Solution Value Maritime developed *"Filtree"*, a unique system that cleans both air and water from all ship types and includes an integrated carbon capture feature making today's fleet (newbuild or retrofit) not only sustainable today but future-proof for tomorrow. The CO<sub>2</sub> capture feature removes and stores carbon from the vessel's exhaust gases and uses it to charge a CO<sub>2</sub> battery which can be offloaded and re-used to facilitate the growth of crops, used to enrich future fuels or it can be safely stored until needed – a truly clean circular solution.



The tug *"Harbor Commander"* is a San Diego fixture. It was the first tug in the PMG fleet and was designed and built by one of the founders Doug Lotoski. To this day it is PMG's Captains first choice for a powerful and maneuverable Harbor Tug in a compact package. The 36' ft tug was built in San Diego, CA in 1992 with major re-builds in 2005 and most recently in 2021. The vessel is owned by **Pacific Maritime Group, Inc.** dba Pacific Tugboat Service based in San Diego and Long Beach, California. Pacific Maritime Group is a well-known transportation, marine service, dredging and construction company. The

*"Harbor Commander"* was re-powered in 2005 during a major refit. A pair of Tier 2, MTU S60 engines were installed. A 2021 repower installed two new CARB certified, Mitsubishi S6A3-Y3MPTK-4 Tier 3 engines. These keel-cooled engines are rated for 500HP @ 1,800RPM. Twin Disc 516 gearboxes turning two 4 blade 39"x46" fixed pitch propellers completed the package. Pacific Maritime Group selected the Mitsubishi engines because they provided similar engine horsepower and rpm, allowing them to utilize existing shafts and propellers. **Cascade Engine Center**, headquartered in Seattle, Washington, provided the engines. San Diego dealer Dee Finley Diesel Repair was the local rep to supply the Mitsubishi engines and provide technical assistance to PTS during the repower. PMG Port Engineers Peter Walding and Mario Piras with Port Captain Tom Ebner led the inhouse construction team simultaneously performing extensive upgrades and maintenance to the vessel during the re-power. Major work entailed wider exhaust stacks and piping, new engine beds, new and larger Ferstrum keel coolers, a new steering pump system, new expansion tanks, re-pitching propellers, upgrades to the navigation electronic, and many more upgrades. The auxiliary engines also saw improvement with larger keel coolers and improvements to the air system. Further improvements included an upgrade to the navigation electronics suite, and to pint entire vessel. PMG will also add to their Mitsubishi fleet later this year by installing a new S16R-Y3MPTAW, 1,675HP engine for the Blarney and another pair of S12R-Y3, 1,100HP engines for the tugboat *"Bass"*. The simple, mechanically controlled, Tier 3 Mitsubishi provides less complex maintenance as computers are not required and the big Mitsubishi displacement provides PTS vessels with reliable power. Pacific Maritime Group is committed to providing powerful, emission friendly tugs to work the waters of San Diego Bay and southern California.



# Marcon International, Inc.

## Tug Boat Market Report – May 2022



**Conrad Shipyard, LLC** is pleased to announce that it has been awarded a contract by the **U.S Army Corps of Engineers** for the design and construction of two CELRE Detroit Ice Class Tugboats. The vessels will provide mobilization of various pieces of floating equipment on the St. Mary's River, upper great lakes, and the Soo Harbor, as well as breaking ice up to 12" thick and performing ice scraping operations at the St. Mary's Falls Canal. "Conrad has a long history with the US Army Corps of Engineers, and we have built several vessels currently in service around the country," said Conrad Shipyard CEO Johnny

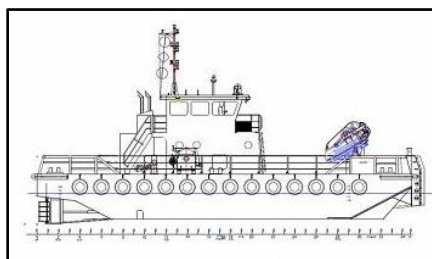
Conrad. The CELRE Detroit Ice Class Tugboats measure 76' x 25' x 10'-8.5" and are ABS classed as Maltese Cross A-1 Towing Vessels, Ice Class C0, Great Lakes Service with Maltese Cross AMS. Each vessel shall also comply with USCG 46 CFR SubChapter M requirements. The tugs are diesel powered, twin screw, open wheel, with 1,600BHP and have deckhouses with galley/mess, berths, and sanitary facilities for a crew of three.



The newly built firefighting vessel "Strażak-28" left the hall of the **Remontowa Shipbuilding SA** shipyard. Later this year it will join the fleet of vessels at Szczecin and Świnoujście Seaports Authority SA. In the nearest future the hull of the vessel will be joined with the superstructure. The fire vessel "Strażak-28" will have the ability to carry out emergency towing in the event of a threat to life and property and to sail on icy waters. The vessel will be manoeuvrable and fast, which will be ensured by two azimuth thrusters, which will make it turn on its own axis and even move sideways if necessary. The vessel will be manned by four ship's crew and four firemen from the Port Fire Brigade. "Strażak-28" will measure 29.2m in length and 10.47m in width. Its

construction draught is 3.45m. It will develop a maximum speed of up to 12.00 knots.

Its bollard pull is 45mt. It will be equipped with three water and foam monitors of 1,350m<sup>3</sup>/h each and two FiFi pumps of 2,700m<sup>3</sup>/h each. The vessel will ensure fire safety in the sea Ports of Szczecin, Police and Świnoujście and assistance to ships carrying dangerous cargo (the vessel will be adapted, among other things, to fight fires on LNG tankers). The project entitled "Purchase of a firefighting vessel for the Szczecin and Świnoujście Seaports Authority" is co-financed by the European Union from the Cohesion Fund under the Operational Programme Infrastructure and Environment. The value of the project is approximately PLN 40.6 million. Co-financing from the European Union approx. 34.5 million PLN. Implementation period: 28.04.2021 r. – 30.10.2022 r. The project is part of a complex project co-financed by the EU funds under the measure of the Operational Programme Infrastructure and Environment 2014-2020: 3.2 Development of maritime transport, inland waterways and multimodal connections. Priority axis III Development of the TENT road network and multimodal transport. Investor supervision is performed by the Contract Engineer: Consortium CELNET Sp. z o.o. S.K. and Polski Rejestr Statków S.A.



**Manor Marine** has committed to the build of a 20 meter Multicat vessel suitable for a range of applications; construction will be undertaken at the fabrication and engineering facility in Portland, Dorset. Focused on the offshore renewables industry, the vessel is designed for multi-purpose uses. The vessel will be suitable for dive support, subsea cable support, towage, buoyage maintenance, marine civil engineering and dredge support. Construction is due to start in June 2022, utilising a keel which was laid in 2020. Constructed using all welded steel, the Multicat will be of single chine construction and will feature a fully fitted out wheelhouse, deck cargo carrying capacity of 20mt, estimated bollard pull of

12mt and a working deck area totalling 70m<sup>2</sup>. An Effer 850.8 deck crane will be installed with a lifting capacity of 2.4mt at 20 meters. At 20 meters in length, the vessel will have an approximate maximum speed of 10 knots, achieved with two Volvo Penta D13-MH marine propulsion engines; the vessel will be suitable for operation in coastal waters (up to 20 miles from the shore) and the craft will be built in accordance with Lloyd's Register Regulations and to MCA Workboat Code CAT 2. Leif Cooper, Managing Director at Manor Marine commented, "This will be the second vessel of this class built by Manor Marine and will be constructed in our dedicated steel working facility. It will be built allowing for optional crew accommodation and various deck winches." The Multicat is scheduled to be completed in early 2023 and will held as stock upon delivery.



# Marcon International, Inc.

## Tug Boat Market Report – May 2022

The project to develop a self-driving tug active in the port of Singapore has taken a new step forward. After receiving the Remote-Control Navigation notation from the American Bureau of Shipping, the vessel in question - the “*Maju 510*”, 32 meters long - also obtained from the same company the one called 'Autonomous' which, according to Abs itself, certifies the its ability to navigate autonomously avoiding collisions, verified through some tests conducted under the supervision of a captain. The tug was developed by **Keppel Offshore & Marine** and is owned by **Keppel Smit Towing**, the latter company which will soon pass under the total control of Rimorchiatori Mediterranei Spa (controlled by the Genoese Rimorchiatori Riuniti and 35% owned by the fund of Daam investment of the Deutsche Bank group). The closing of this operation, as well as the one that will bring RM itself to 100% of Maju Maritime Pte Ltd, a joint venture between Keppel Corporation and Smit, should arrive by the end of the first half of this year. According to the project, the “*Maju 510*” can be operated from the ground via a joystick. Built in 2011, the craft was 'transformed' by Keppel O&M who acted as the 'systems integrator' of the self-driving solutions and created the ground control station together with Keppel Marine and Deepwater Technology (KMDTech). Abb and the Marine Port Authority of Singapore were also involved in the project.



**Walrus Maritime BV** ordered a complete new tugboat built by **Neptune Shipyards** – Aalst; Netherlands a Eurotug 2008 design which is IMO Tier III certified. With a low fuel consumption, and high manoeuvrability. The vessel is designed to perform a wide variety of tasks. Scheduled delivery date: October 2022 Main characteristics: Loa: 19.95m; Bmld: 7.80m; Draft operational: 2.50m; Draft max: 2.75m; BP approx: 20mt. In the meantime, Walrus Maritime BV has the Eurocarrier EC2495 in the fleet on a rental basis until the delivery of the new tugboat.

Entire **Vane Brothers** tugboat fleet now operating with valid certificates of inspection as part of Subchapter M program. Demonstrating the company's ongoing commitment to safety, Vane Brothers has announced that 100% of its tugboats have earned a valid Certificate of Inspection (COI) as part of the U.S. Coast Guard's Subchapter M program. Subchapter M refers to federally regulated safety standards for “*inspected towing vessels.*” All applicable vessels are required to earn a valid COI by July. The tug “*Long Island*”, which was inspected by Coast Guard personnel outside Vane Brothers' Baltimore headquarters on May 26, became the last of Vane's 49 towing vessels to become certified. In April 2018, the Vane Brothers articulated tug/barge (AT/B) tug “*Brandywine*” was the first Vane vessel to receive its COI. At that time, Vane was recognized as the first American Waterways Operators (AWO) member company to earn a COI.



### Company News



**Svitzer**, a leading global towing provider and part of Maersk, has entered into a 12 year contractual arrangement with **Woodside Energy Limited** (Woodside) for the provision of towing and pilot transfer services at Woodside's LNG export operations in the Port of Dampier, commencing from the end of 2023. Following an innovative open tender process, Svitzer will provide five modern 80mt bollard pull tugboats to service the critical towing needs for the shipping of export LNG cargoes. Svitzer will also provide one new pilot transfer vessel for pilot transfer services to support Woodside and its joint venture operations. This tender outcome will see Svitzer provide world-class services to

Woodside that deliver value and efficiency, while significantly reducing emissions across fleet operations by deploying smart and innovative enhancements to the tugs' design and operating model. Commenting on the contract award, Nicolaj Noes, Managing Director for Svitzer Australia said: “*We are honored to have been chosen as Woodside's long-term provider of towing services for its flagship LNG operations in Western Australia. This important contract consolidates Svitzer's leading position in providing towing services to LNG operations and expands our ability to provide safe and efficient towing and marine services to support our customers around the globe. Svitzer looks forward to collaborating with Woodside to further reduce emissions from its tug operations by incorporating the latest proven new technologies over the term of the contract. It is a key priority for Svitzer to contribute positively to the local communities where we operate. A key outcome of the tender will be the commissioning of a new pilot transfer vessel to be built in WA, and providing a tailored training and professional development package for a WA-based workforce. With a strong focus on emissions reduction, delivering value and efficiency, and supporting local industries, we look forward to working closely with Woodside and the team in Western Australia.*”

# Marcon International, Inc.

## Tug Boat Market Report – May 2022

**Svitzer**, leading global towage operator and part of A.P. Moller-Maersk, recently unveiled its decarbonization strategy that will see the company become fully carbon neutral by 2040. The strategy will see Svitzer decarbonize in two phases. Firstly, Svitzer is aiming to reduce the CO2 intensity of its entire fleet by 50% by 2030. This will pave the way for fully carbon neutral operations just ten years' later in 2040, which is in line with A.P. Moller-Maersk's ambition. As part of the strategy, Svitzer will invest time and capital to embed sustainability throughout its business, in day-to-day operations, in people and how they do their jobs, in its fleet and through the types of fuel used by its vessels. Svitzer will measure progress against a 2020 baseline, which saw the company's fleet of approximately 400 vessels emit 280,000 tons of CO2, or the same amount as 110,000 cars. Svitzer has already implemented process changes to help spur improved efficiency across its fleet. For example, the company's 'Aim for 8' initiative – which asks crew to optimize their speed during tug mobilization and demobilization – has saved over 255 tons of Marine Gas Oil (Diesel) in the UK alone. Initiatives like these which influence the behavior of our staff, combined with improved vessel connectivity, integrated performance monitoring across Svitzer's fleet and improvements to scheduling optimization, will help drive down emissions in the short term. Svitzer will also focus on changing the fuel mix of its fleet. The success of the organization's EcoTow project, which has seen Svitzer's entire fleets in London, Felixstowe, and Southampton switch to low carbon biofuels, is currently being replicated more widely across ports in the UK and to the company's global operations. Svitzer will also begin to explore methanol as a fuel for towage and, in the long-term, take required steps to retrofit and renew its fleet in order to operate on low carbon fuel solutions. Finally, Svitzer will focus on improving the efficiency of its fleet from a design perspective. As part of this, the company will launch its new and innovative TRAnverse Tug design, which can generate higher steering forces than most designs of similar dimensions in a smaller, nimbler package with a reduced environmental footprint. The Robert Allan design will come into operation from Q3 2023. Commenting on the decarbonization strategy, Kasper Nilaus, CEO, Svitzer, said: *"We are proud to unveil our strategy to become fully carbon neutral by 2040. We are not committing to these ambitions lightly and understand that it will require leadership and collaboration with our customers, suppliers, industry peers, and ports around the world to ensure success. Widespread changes and investment into the way we work, the fuel we burn, and the composition of our fleet will be required. The work has already started, and the whole team at Svitzer is invigorated by the opportunity to contribute to solving this truly global challenge. We hope that by leading the way for towage we will be able to generate the cleaner, greener future that our children, our industry, ports around the globe and our oceans deserve. We recognize that we can't do this alone. Collaboration and partnerships with our customers and suppliers will be key, and we look forward to taking the industry along with us in our journey to become carbon neutral by 2040."* Gareth Prowse, Head of Decarbonization, Svitzer, added: *"The decarbonization strategy we are launching today is ambitious and sets a clear roadmap for Svitzer but, most importantly, it is absolutely achievable if we focus on the right areas to generate real progress. That is why we have split our strategy into three pillars: behavior, equipment, and fuel, and we will focus on each of these in a step change fashion to bring about carbon neutrality in a way that works for our customers and maintains the high level of service Svitzer is known for."*



Merging the UK North and South clusters will increase operational agility and optimize service delivery across the region. **Svitzer**, leading global towage provider and part of A.P. Moller-Maersk, recently announced the merger of its UK North and UK South clusters, into one unified team. Bringing the teams together will enable Svitzer to streamline its operations, optimize customer service and manage the continued complexity in the region more effectively. Like most businesses, Svitzer has been affected by the global COVID-19 pandemic and the war in Ukraine. In the UK specifically, Svitzer also faces the effects of Brexit, increased competition and continuously developing customer demands, all of which increase the need for regional alignment. Empowering the local organization and enabling faster decision making is key to remaining highly competitive and maintaining high customer satisfaction in the UK market. The unified UK cluster will support improvements in reporting and operational agility by establishing a single UK management team; Port Managers, Cluster Technical Managers, the Head of UK Crewing and the Head of Svitzer's UK Customer Service Center will all report to the cluster MD. Commenting on the merger, Lise Demant, Managing Director, Svitzer Europe said: *"The UK North and UK South clusters have built a strong business foundation with well-functioning local teams and a solid market position. However, to navigate the increasing market complexity and thrive as a business going forward, we need more unified operations. Merging our UK clusters will further support us in optimizing the use of our assets, increase operational agility and continue improving our service levels in the region."* Svitzer currently operates more than 70 tugs in the UK, with around 650 employees. The UK has been the starting point for the company's EcoTow project, with Svitzer's entire fleet in London, Felixstowe, and Southampton switching to low carbon biofuels. The service is set to be rolled out across the remaining ports in the UK and across Svitzer's global operations.

# Marcon International, Inc.

## Tug Boat Market Report – May 2022

Largest acquisition in KOTUG's history, family owned maritime company since 1911. **KOTUG International B.V.** (KOTUG) entered into an agreement to acquire **Seaways International** (Seaways), a reputable owner and operator of state-of-the-art Offshore Support Vessels providing offshore marine services to the global energy industry. The acquisition is an important milestone for KOTUG to strengthen its leading position in global offshore markets. The intended acquisition of Seaways marks the largest in KOTUG's history and is part of KOTUG's strategy to expand its business in assisting worldwide floating facilities such as FSO, FPSO, FLNG, FSRU and SPM Terminals. In addition, it will further consolidate the position of KOTUG in this niche market that is



expected to grow as new offshore floating projects emerge in response to rising energy demand. Seaways owns and operates a fleet that comprises of DPS-2 capability AHTs, Fast Crew Suppliers (Crew Boats for Passenger Transportation) and Cargo Barges, and also provides terminal management services. Headquartered in Dubai, the family-owned company has a primary focus on West Africa. The acquisition will enable KOTUG to pursue its mission to provide sustainable towage and related services to the maritime industry, exceeding clients' expectations through its first-class portfolio. Ard-Jan Kooren, President & CEO of KOTUG International: *"The acquisition of the renowned Seaways will mark an important milestone for KOTUG. It fits our strategy to expand our (offshore) operations worldwide to meet the increasing demand for offshore support vessels. Over the last years, we have already heavily invested in offshore support vessels and people. The integration of the services and assets of the two leading companies will bring compelling synergy opportunities, leading to more efficient operations and enhancing significant value creation for our global customers. It strengthens our presence in West Africa and paves the way to enter other emerging markets. Seaways is a reputable company with high-quality services and a great motivated team. The culture and spirit of both companies have many similarities, and we foresee a prosperous future together."* Captain Ashish Nijhawan, Managing Director of Seaways International: *"I am proud that the Seaways family will become part of the KOTUG global family. Since its incorporation 27 years ago, Seaways has built itself into a reputed offshore maritime company with a proven track record and a knowledgeable and experienced team. KOTUG is an ideal fit for our people and our customers. I feel confident that this acquisition enhances Seaways, her dedicated onshore/offshore staff, and for her to grow into KOTUG's (new) business areas globally."* The acquisition is expected to be completed in the second half of 2022 - both companies will now work on customary governmental and other approvals, with the aim of completing the transaction within July 2022.



April 4, 2022 **Sarter Marine Towing Company Inc.** announced that it has agreed upon definitive terms for the sale of Sarter to **The Great Lakes Towing Company**. The agreement includes the Towing Company's purchase of the tugboats "*Donald J. Sarter*" and "*William C. Selvik*", as well as all supporting machinery and equipment and most other shoreside assets. The remaining five tugs in Sarter's fleet will be chartered to the Towing Company under a long-term bareboat charter arrangement. The Towing Company has retained all employees of Sarter Marine and will supplement the business with administrative and financial support to help support and enhance Sarter's current book of towing business in the region. Last fall, the Towing Company stationed two tugs in Sturgeon Bay, including one of its

historic "G" tugs and a former Navy YTB. With the Sarter Marine Towing fleet, the Towing Company will continue to provide timely ship assist services to Fincantieri Bay Shipbuilding (FBS), the domestic fleet of U.S. and Canadian lakers, and visiting foreign flag salties. The combined companies will also continue to provide stout ice breaking assets for ice work in Sturgeon Bay and surrounding waters. *"The Sarter Marine Towing Team is excited to partner with Great Lakes Towing. They have been a pleasure to work with,"* said Julie Sarter, President and Owner of Sarter Marine Towing. *"The acquisition of Sarter Marine significantly enhances the Towing Company's capabilities in Northern Green Bay and Lake Michigan. We look forward to integrating Sarter's marine transportation capabilities and reach into the Towing Company's operation, while continuing to provide superior service to the customers we have been privileged to serve for years,"* says Joe Starck, President, The Great Lakes Towing Company. *"This is really a win-win outcome for everyone involved!"* The acquisition closed on March 23, 2022.

# Marcon International, Inc.

## Tug Boat Market Report – May 2022

**Ocean Group** is proud to announce a 10-year agreement with the **Port of Vancouver** to provide Harbour towing services at the two Roberts Bank terminals, Deltaport and Westshore Terminals. To carry out this agreement, Ocean Group will mobilize two DAMEN ASD Tug 2813 tugs equipped with firefighting systems and IMO Tier III engines, starting July 19. In addition to being proud partners of the port in the ECHO program, Ocean Group meets the highest environmental standards for motorization in Canada. These tugs are therefore among the eco-friendliest operating in the Vancouver area. By winning this call for tender, Ocean Group has strategically positioned itself in the Port of Vancouver and has set itself apart by emphasizing the reduction of pollutants, more competitive rates, and tugs better adapted to the needs of its customers. Once again, Ocean Group reiterates its desire to become a world-class organization and to be a trusted partner for all its customers. Ocean Group began operations in the Port of Vancouver in March 2020. Since then, the company has considerably increased the number of tugs in this area, with the arrival of new state-of-the-art tugs and the acquisition of Samson Tugboats. As of next July, Ocean Group will have eight Harbour tugs in the Vancouver area to serve its customers.



The certification in question is ISO 9001:2015, which standardizes quality control systems in organizations. **SAAM Towage Brazil** has renewed its ISO 9001: 2015 certification for three more years. This international certification validates the procedures and quality of the towage services provided by the company. *“This is an achievement for our entire team that not only demonstrates our commitment to providing the best service for our customers, but also motivates us to carry forward with continuous improvement. We want SAAM Towage to be the preferred provider of towage services and, therefore, we strive each day to imprint a seal of efficiency and safety on our work,”* remarked the country manager of SAAM Towage in Brazil, Renata Ervilha. *“SAAM Towage has enjoyed*

*sustained growth in recent years. We are the largest towage company in the Americas, with operations in 13 countries at more than 80 ports. We want this growth to be sustainable, and an essential component of this objective is how our single operating model and standardized management across the continent are distinguished for the quality of our services,”* she added. The recertification audit was conducted by DNV Business Assurance and evaluated leadership, planning, support, operations, performance and improvements. SAAM Towage Brazil employs a team of over 520 highly specialized individuals and operates 51 tugs at 14 ports distributed all along the coast of Brazil.

**SAAM Towage Canada** and **Coast Tsimshian Enterprises Ltd.** are proud to announce the signing of a strategic alliance agreement. This alliance is the first of its kind for the towage industry along Canada’s Pacific coast and is a result of years of collaboration and dialogue among the parties. It is a true example of how industry and Indigenous communities can work together for their mutual benefit. *“Today’s announcement reflects our ongoing commitment to reconciliation and to building trusting, respectful and meaningful relationships with local Indigenous communities,”* said Sander Bikkers, President of SAAM Towage Canada. *“We have been very honored to live, work and play within the Traditional Territory of the Coast Tsimshian. Many community members have made significant contributions to SAAM, serving in roles as captains, mechanics, deckhands and more. We look forward to increased opportunities, partnerships and understanding with this announcement,”* concluded Bikkers.



Through this long-term alliance, SAAM Towage Canada will provide high-quality towage, ship-docking and ship escort services within the traditional territory of the Coast Tsimshian, including the Port of Prince Rupert and Port Edward. Additionally, the alliance will establish longterm sustainable benefits for Lax Kw’alaams and the Metlakatla First Nation and provide access to education, training, and employment opportunities for their members. *“I am happy were able to formalize our relationship”*, said Mayor Garry Reece, of Lax Kw’alaams *“We value the contributions to our members SAAM Towage has made over the years and are certain that with our support SAAM Towage will thrive in our Territory”*. Harold Leighton, CEO of Metlakatla Development Corporation concurs stating that *“I appreciate the opportunity that this alliance between Coast Tsimshian Enterprises and SAAM Towage represents. We look forward to many successful years of cooperation and success.”* The agreement is effective immediately.

# Marcon International, Inc.

## Tug Boat Market Report – May 2022



**SAAM Towage Canada** announced the acquisition of **Standard Towing Ltd.** and **Davies Tugboat Ltd.** Both companies provide Harbour, Shipdocking and Towage services on the West Coast of Canada. The acquisition contributes to SAAM Towage's drive to continue to consolidate its leadership position on the West Coast. *"Through this acquisition we are adding three Canadian built tugboats to the fleet which are in excellent condition. In addition, SAAM Towage will expand our service area to Northern Vancouver Island. This strengthens our overall position in British Columbia"*, said the President of SAAM Towage Canada, Sander Bickers. The assets being acquired are *"Numas Warrior"* and *"Renegade"* who will both continue to serve in Port McNeill and Point Valiant who will serve in a long term charter. *"At the same time, we are also very pleased to welcome the experienced crew of Standard Towing to SAAM Towage. Their experience and knowledge will enable us to continue to service our customers beyond expectations"*, concluded Bickers.

**SAAM Towage** reported that it has signed an agreement with **Ian Taylor** to acquire the company's towage operations in Peru, which currently provides services with four tugs at the ports of Callao and Paita. *"This agreement, just like the acquisition in Canada of Standard Towing and Davies Tugboats formalized a few weeks ago, is part of our strategy to lead the consolidation process taking place in the towage industry. It will enable us to continue to strengthen our presence along the Pacific Coast, with the best service offering and geographic coverage,"* commented SAAM Towage CEO Hernán Gómez. The executive added that, with this deal, *"we aim to incorporate high level assets into our fleet to join the five tugs we already have operating at Peruvian ports. Our intention is to continue operating with the excellence, safety and service quality that has set Ian Taylor apart in Peru, values that have been shared by its current shareholders, management and employees and recognized for many years by its customers."* SAAM Towage has been operating in Peru since 2021. Once this deal is completed, the company will have a fleet of nine tugs and consolidated national coverage. It is the leading provider of towage services in the Americas. With a fleet of more than 180 tugs at 80 ports in the Americas, the company completes over 110,000 maneuvers for around 37,000 vessels per year.



22 April 2022 **Adani Ports and Special Economic Zone Ltd** (APSEZ) through its subsidiary, **The Adani Harbour Services Ltd** (TAHSL), entered into a definitive agreement for acquisition of 100% stake in **Ocean Sparkle Ltd** (OSL), India's leading third-party marine services provider. Key activities carried by the company include

towage, pilotage, and dredging. With an asset base of 94 owned vessels and 13 third-party owned vessels, OSL is a market leader. OSL is valued at an enterprise value of INR 1,700 Cr with INR 300 Cr of free cash in the company. The company was established in 1995 by a group of marine technocrats with Mr. P Jairaj Kumar as the Chairman and MD, who will continue as the Chairman of the OSL board. *"Given the synergies of OSL and Adani Harbour Services, the consolidated business is likely to double in five years with improved margins, thereby creating significant value for APSEZ's shareholders."* said Mr Karan Adani, CEO and Whole-time Director, APSEZ. *"This acquisition not only provides APSEZ a significant share of India's marine services market but also provides us a platform for building presence in other countries, thereby facilitating APSEZ's journey towards becoming the largest port operator globally by 2030 and largest integrated transport utility in India,"* OSL has long-standing relationships with its existing clients, with contracts ranging from 5 to 20 years (average length of contracts is ~7 years). Further, the contracts are on Take or Pay (TOPA) basis, thereby providing robustness to OSL's business model. The Company has presence in all the major ports, 15 minor ports and all the 3 LNG terminals in India. Over the years, OSL has built and deployed a team of 1,800 personnel across India. The Company has significant experience in global maritime servicing through its operations in Oman, Saudi Arabia, Sri Lanka, Qatar, Yemen and Africa. Financials and Valuation OSL's attractive capital structure, quality operations and sustainable cash flows are reflected in its attractive credit rating (AA- by ICRA). The Company is expected to have revenue of INR ~600 Cr, EBITDA of INR ~310 Cr and PAT of INR ~135 Cr in FY22. Around 92% of OSL's total revenue was contributed by marine services (Towage & Pilotage), and the remaining 8% is from dredging and other offshore services combined. The net debt to EBITDA ratio is less than 1x. APSEZ's acquisition of OSL concluded at an attractive EV/ FY23E EBITDA of 5.7x. On the back of operational and financial synergies, the consolidated revenue and EBITDA of Adani Harbour Services is expected to jump ~100% and reach around INR 5,000 Cr & INR 4,000 Cr respectively by FY27.

# Marcon International, Inc.

## Tug Boat Market Report – May 2022

Boskalis and its co-shareholder KS Investments Pte. Ltd. (Keppel) have completed the sale of their equity stakes in their harbor towage activities in Singapore and Malaysia (Keppel Smit Towage Pte Ltd and Maju Maritime Pte Ltd) to Rimorchiatori Mediterranei S.p.A. The intended sale was announced on 15 November 2021.

Boskalis received EUR 92 million in cash for its 49% equity stake in the joint ventures resulting in a pretax book gain of approximately EUR 50 million, both of which will be included in the 2022 first half year results. The activities and results of KST and Maju were deconsolidated as per 1 January 2022. Keppel Smit Towage (KST) was established in 1991 as a joint venture between Keppel and SMIT, a wholly-owned subsidiary of Boskalis. Over the past thirty years, KST/Maju has developed into one of the largest and leading providers of harbor towage services in Southeast Asia. KST/Maju operates a large fleet of tugboats in Singapore and through its joint venture in Malaysia. The sale of KST/Maju follows the strategic decision taken by Boskalis in 2019 to divest its harbor towage activities. Boskalis divested its stakes in Saam Smit Towage and Kotug Smit Towage in 2019. Rimorchiatori Mediterranei S.p.A. is a subsidiary of Rimorchiatori Riuniti Group, a leading maritime service provider headquartered in Genoa, Italy established in 1922. Rimorchiatori Mediterranei operates a fleet of more than 100 modern vessels in more than 20 major ports employing approximately 900 people.



**UZMAR** announced that it has successfully demonstrated conformance to its energy management program against the requirements of the standard. UZMAR became the first Turkish Shipyard to receive ISO 50001 certification by Lloyd's Register. *"ISO 50001 certification on energy management systems is a direct reflection of the environmental commitment of our corporate culture,"* said Noyan Altug, UZMAR CEO. UZMAR has long recognized the value and importance of strong management systems. UZMAR was previously certified to ISO 14001 environmental and ISO 9001 quality standards. *"All levels of our*

*business are committed to lean principles and implementing new energy-saving methods; congratulations to all UZMAR employees for their active engagement throughout our entire energy reduction journey,"* Altug stated. *"Our energy reduction measures at UZMAR have also been positively received by visitors to the shipyard. They are aware that their ships are fuel-efficient, and they can see how environmental sensitivity is woven into the UZMAR culture and shipbuilding process."* Altug said. This achievement is yet another validation of the robustness of UZMAR's environmental management system, and a reaffirmation of the company's belief that an effective management system enables continual improvement.

