Vessels and Barges for Sale or Charter Worldwide

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June 2022

Inland Pushboat Market Report



Of the 13,444 vessels (excluding barges) Marcon currently tracks, 796 are inland river pushboats with 49 officially on the market for sale (35 U.S. flag and 14 foreign flag). Six of the boats with age listed were built within the last ten years. 21 boats are forty-five years of age or older. The oldest listed was built in 1954, a 73.6', 1,320BHP vessel on the U.S. West Coast. This is counterbalanced by two a 2022-built, 72', 2,000BHP vessel located in the U.S. Midwest. Marcon also has nine inland river pushboats listed for charter – seven U.S. and two foreign.

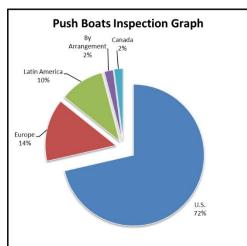
Market Overview

The number of inland river push boats officially on the market for sale in total is 49, down five, or 9.26%, from one year ago in June 2021 and down 42 or 46.15% from May 2017. Composition of horsepower range in the last year has changed with the biggest shifts being five fewer 2,000-3,000HP with average age of 1998 (compared to 1989 in 2021), one more under 1,000HP (1988 vs 1990), one more 1,000-2,000HP (1976 vs 1972), one fewer 3,000-4,000HP (1978 vs 1967) and one less 4,000-5,000HP (2013 vs 1999) push boats offered. This slight decrease in offerings is from a combination of older, lower horsepower push boats being scrapped but also more vessels are going back to work as we are coming out of the past two years of pandemic shutdowns. We do not have any push boats offered greater than 5,000HP, reflecting that higher horsepower units are working consistently despite the current events. For now, 12.24% of the push boats available are less than 10 years old, down from 16.67% reported one year ago and from 13.19% reported five years ago. In looking at overall fleet age and then by U.S.-flagged versus foreign flagged, over the past five years we can see that while overall and U.S.-flagged fleet age remained steady, foreign-flagged fleet age increased significantly as older units were placed on the market due to no work amid the global economic crisis. Specifically, the average age of all on the market through Marcon last year and five years ago was 39 and 34 years, respectively, compared to 37 years now. Mostly older foreign-flagged vessels have gone on the market, with average age going from 19 years in 2017 to 41 years now. U.S.-flagged push boats went from 36 years old five years ago to 38 last year to back to 36 years old as of this report date.

Of the 43 vessels listed for sale where engine type is known, 13 are powered with Cummins, followed by nine with CATs, six with EMDs, John Deere, Mitsubishi and other engine types with four each and three with GMs. Most of the inland river pushboats Marcon has listed for sale are located in the U.S. with 35 vessels or 72%; followed by seven or 14% in Europe, five in Latin America and one each in Canada and with "undisclosed" location. While our focus is on the U.S. market, there has been a decline of vessels offered in the U.S. as percentage of all available for sale noted a year ago when it dropped to 65% compared to 81% in 2017, but it has now increased up to 72%. Compared to five years ago, there are fewer push boats available in Europe (17% in 2017 to 14% now) but more in Latin America (2% in 2017 to 10% now).

Marcon has closed 12 sales to date in 2022, after ending 2021 with ten sales and one charter in 2021 and 2020 with 22 sales and charters

completed. Many of the 2020 deals were well in the works before the Covid-19 situation developed and oil prices crashed. Throughout most of 2020 and early 2021, the market was extremely slow both domestically and world-wide. We continue to see a pickup in inquiries and inspections and have multiple sales pending at this time as business rebounds. We are hopeful, with the current pace of business, to return to pre-Covid sales levels by mid-2023.

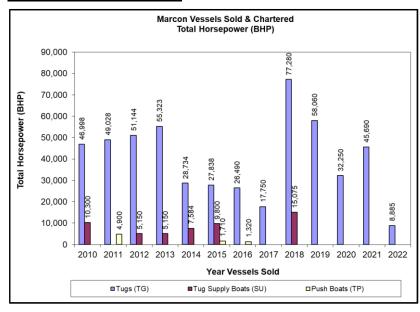


Inland Push Boat Market Report – June 2022

Marcon's Market Comments

The U.S. inland market has been stronger in 2022. Major drivers continue to include supply chain disruptions, the war in Ukraine, general inflationary pressures and high fuel prices. Grain transportation by barge is still running about 10 percent higher than last year for the same period, but declining in recent weeks as international markets expect supplies from Ukraine to resume. Average U.S. diesel fuel prices have recently decreased slightly, but are still up at around \$5.25 per gallon, compared to around \$3.35 per gallon last year (an increase of over 50%). The inland tank barge market is seeing increase utilization and higher rates. Both dry cargo and tank barge operators are facing higher fuel costs and generally high inflationary pressures impacting margins. Operators hope to offset inflated costs against higher rates in the second half of 2022 and into 2023 to restore margins. Supply chain disruptions are expected to continue to gradually improve as the pandemic is further in the rearview mirror. Although demand is strong for inland push boats, second hand supply continues to be very limited. Overall Marcon has seen an increase in activity across several maritime sectors in the first half of 2022, with a limited supply of good second-hand vessels and barges being the primary factor influencing the number of sales.

Marcon's Recent Sales



To-date in 2022, Marcon has announced 12 sales closed to date in 2022, comprised of two ocean deck barges, two inland deck barges, an ocean tank barge, four tugs totaling 8,885BHP, a fast supply utility vessel, a platform supply vessel and an anchor-handling tug supply vessel. In 2021, Marcon completed 11 sales and charters, including nine tugs totaling 45,690BHP, a 164,000BBL ocean tank barge and a 17,586dwt ocean deck barge. Since 1981, Marcon has sold or chartered 36 inland river pushboats totaling 80,780BHP, 382 tugs (1,245,572HP), 111 inland hopper barges (171,006dwt), 94 inland deck barges totaling 195,967dwt capacity and 64 inland tank barges with an aggregate capacity of 1,047,848 barrels, out of 1,539 vessels and barges sold or chartered worldwide.

Featured Listings for Sale Direct from Owners

Marcon currently has 81 inland river pushboats, hopper barges and tank barges for sale worldwide, of which 26 are non-U.S. and 55 U.S. flag, plus numerous other vessels and barge not officially on the market which may develop on a private & confidential basis.

File: TP30147 Push Boat: 147.0' loa x 38.5' beam x 10.0' depth. Built in 1973 by Superior Boat Worker; LA USA. U.S. flag. GRT: 634. Class: None. Main Engines: 2 x EMD 12-567C-E2 total **3,200BHP**. 2 - FP 90" x 88" props. Gensets: Cummins 6CTA8.3. No flanking rudders. Laid-up. **U.S. Gulf Coast.**





File: TP30111 Push Boat: 110.0' loa x 34.0' beam x 10.5' depth. Built in 1976 by Davo Corp. U.S. flag. GRT: 283. Class: None. Main Engines: 2 x EMD 12-645-E6 total **3,000BHP**. 2 - FP 84" x 77.8" props. Kort nozzles. Gensets: Cummins 6CTAB.3. No flanking rudders. Laid-up. **U.S. Gulf Coast.**

Inland Push Boat Market Report – June 2022

File: TP30060 Push Boat: 60.0' loa x 54.0' beam x 12.0' depth x 10.50' loaded draft. Built in 2005 by Halimar Shipyard. U.S. flag. GRT: 292. Class: None. FO: 31,000g. FW: 10,000g. Main Engines: 2 x CAT 3512 total **3,000BHP**. 2-75.75"x80" 4-blade Kaplan FP props. Kort nozzles. Rudders can operate independently. Gensets: 2 - 60kW / John Deere. Quarters: 6 / 4 cabins. AirCon. Galley. Towboat which was formerly in a barge combination with 275' x 54' x 12' lead & 260' x 54' second box barge. Air operated retractable wheelhouse. Minimum height 17'. Max



height of eye 30'. Drydocked 30 April 2010 & props changed out to stainless steel. Laid-up. U.S. Gulf Coast.



File: TP30011 Push Boat: 110.0' loa x 34.0' beam x 10.5' depth. Built in 1976 by Dravo Corp. U.S. flag. GRT: 302. Class: None. Main Engines: 2 x EMD 12-645-E7B Tier 2 total **3,050BHP**. 2 - FP 83" x 83.7" props. Kort nozzles. Gensets: John Deere 6068T / Cummins 6C. No flanking rudders. Laid-up. **U.S. Gulf Coast.**

File: TP28121 Push Boat: 121.0' loa x 33.0' beam x 10.3' depth. Built in 1970 by Nashville (Tenn) Bridge. U.S. flag. GRT: 349. Class: None. Main Engines: 2 x EMD 8-645-E5 total **2,800BHP**. 2-FP 90" x 88" props. Gensets: Cummins 6CTA8.3. Retractable wheelhouse. **Flanking rudders**. Laid-up. **U.S. Gulf Coast.**





File: TP20098 Push Boat: 70.0' loa x 24.0' beam x 10.2' depth. Built in 1976 by Pascagoula, MS USA. Rebuilt: 2015. U.S. flag. GRT: 158. Class: USCG COI - Exp. 02 Mar 2026. FO: 15,000g. Main Engines: 3 x CAT C32 (Tier 3) total 2,000BHP. Gensets: 65kW / John Deere. 26.5' eye level. U.S. Midwest.

File: TP20097 Push Boat: 72.0' loa x 30.0' beam x 10.8' depth. **Built in 2022** by US Midwest. U.S. flag. GRT: 195. USCG COI - Exp. 17 Mar 2027. FO: 20,000g. Main Engines: 3 x CAT C32 (Tier3) total **2,000BHP**. Gensets: 65kW / John Deere. 30' eye level. **U.S. Midwest.**





File: TP19116 Push Boat: 116.0' loa x 28.0' beam x 10.0' depth. Built in 1975 by Brent Shipyard. U.S. flag. GRT: 289. Class: None. Main Engines: 2 x EMD 8-645-E2 total **1,950BHP**. 2 - FP 88" x 82" props. Gensets: Cummins 6CTA8.3. **Flanking rudders**. Retractable wheelhouse. Laid-up. **U.S. Gulf Coast.**

File: TP19092 Push Boat: 92.0' loa x 32.0' beam x 9.5' depth. Built in 1974 by LeMay Barge and Supply Inc. U.S. flag. GRT: 301. Class: None. Main Engines: 2 x EMD 8-645E2 total **1,900BHP**. 2 - 72" x 76" FP props. Gensets: John Deere 6068T / Cummins 6CTA8.3. No flanking rudders. **U.S. Gulf Coast.**





File: TP18068 Push Boat: 86.0' loa x 27.0' beam x 9.3' depth. Built in 1976 by Superior Boat Works. U.S. flag. GRT: 201. Class: None. Main Engines: 2 x EMD 8-645-E2 total 1,800BHP. 2 - FP 76" x 63" props. Gensets: JD6068 / Cum6CTA8.3. Retractable wheelhouse. Flanking rudders. Laid-up. U.S. Gulf Coast.

Inland Push Boat Market Report – June 2022

File: TP18018 Push Boat: 66.0' loa x 28.0' beam x 8.5' depth. Built in 1982 by Lemay Barge Sup. U.S. flag. GRT: 170. Class: USCG COI Sub M - Exp. 9 Aug 2024. Main Engines: 3 x Cummins KTA19 Tier 1 total **1,800BHP**. 3 - FP 72" x 58" props. Gensets: JD4045TF285. Triple screw. **Flanking rudders**. Laid-up. **U.S. Gulf Coast.**





File: TP14062 Push Boat: 65.0' loa x 27.0' beam x 8.5' depth. Built in 1973 by Atlantic Marine Inc; FL USA. U.S. flag. GRT: 149. Class: None. Main Engines: 2 x Lugger L6170/BT total **1,400BHP**. 2 - FP props. Gensets: GM4-71/N.L.M. 40c2. No flanking rudders. Laid-up. **U.S. Gulf Coast.**

File: TP13059 Push Boat: 57.0' loa x 25.0' beam x 8.5' depth. Built in 1981 by Bayou Black Shipyard. U.S. flag. GRT: 139. USCG COI Sub. M - Exp. 27 Aug 2024. Main Engines: 2 x Cummins QSK19M Tier 2 total **1,320BHP**. 2 - FP 68" x 59" props. Repowered 2008. Gensets: JD4045TFM75. OOS starboard main engine. No flanking rudders. Laid-up. **U.S. Gulf Coast.**





File: TP12176 Double Hull Push Boat: 75.0' loa x 26.0' beam x 8.6' depth. Built in 1982 by Superior Boat Works; LA USA. U.S. flag. GRT: 85. USCG COI Sub M - Exp. Apr 2025. Main Engines: 2 x Cummins 38M Tier 2 total **1,200BHP**. 2 - FP 70" x 52" props. Gensets: Cummins 6CTA8.3. Retractable wheelhouse. No flanking rudders. Laid-up. **U.S. Gulf Coast.**

File: TP12175 Push Boat: 75.0' loa x 24.0' beam x 10.0' depth. Built in 1970 by Main Iron Works; LA USA. U.S. flag. GRT: 143. Class: USCG COI Sub M - Exp. 31 Oct 2022. Main Engines: 2 x Mitsubishi S6A3MPTA-3 total **1,200BHP**. 2 - FP 68: x 42" props. Gensets: John Deere 4045TF285. **Flanking rudders**. Laid-up. **U.S. Gulf Coast.**





File: TP12041 Push Boat: 71.0' loa x 24.0' beam x 10.0' depth. Built in 1970 by Main Iron Works. U.S. flag. GRT: 143. Class: None. Main Engines: 2 x Cummins KTA19M3 total **1,200BHP**. 2 - FP 68" x 42" props. Gensets: JD4045TF285. Need port gear replaced. **Flanking rudders**. Laid-up. **U.S. Gulf Coast.**

File: TP11062 Push Boat: 60.0' loa x 22.0' beam x 8.2' depth x 8.50' loaded draft. Built in 1978 by Orange Shipbuilding; TX USA. **Rebuilt: 2014.** U.S. flag. GRT: 91. FO: 11,880g. FW: 2,657g. Winch: 2 - 20T Nabrico - Hydraulic/Electric. Main Engines: 2 x Scania DI13 78M total **1,100BHP**. 2 - FP props. Gensets: 2 - 40kW / Mitsubishi (new in 2014). Triple deck with 32' height of eye. **Flanking rudders**. Boat was completely refitted / repowered in 2014 after being gutted by a fire. Scania M/Es are Tier 2, 13 liter turbo charged. New machinery (including reduction gears) in 2014. Wheel house and all interior completely redone. F.A.S.T. marine sanitary device. **U.S. Gulf Coast.**



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File: TP09664 Push Boat: 60.0' loa x 25.0' beam x 9.5' depth. Built in 1981 by Balehi Shipyard. U.S. flag. GRT: 154. Class: USCG COI Sub M - Exp. 11 Feb 2024. Main Engines: 2 x Mitsubishi S6A3MPTA total **960BHP**. 2 - FP 58" x 66" props. Kort nozzles. Gensets: JD-4045TF285. **Flanking rudders**. Laid-up. **U.S. Gulf Coast.**

File: TP09658 Push Boat: 55.0' loa x 24.0' beam x 8.5' depth. Built in 1980 by V & M Shipyard. U.S. flag. GRT: 116. Class: USCG COI Sub M - Exp. 27 Sep 2023. Main Engines: 2 x Mitsubishi S6A3MPTA total **960BHP**. 2 - FP 66" x 50" props. Gensets: JD4045TF285. **Flanking rudders**. Laid-up **U.S. Gulf Coast.**

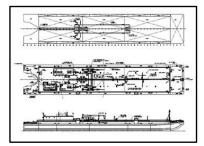




File: TP09046 Push Boat: 45.6' loa x 20.0' beam x 6.7' depth. Built in 1975 by Sabine River Fuel Co. U.S. flag. GRT: 69. Class: None. Main Engines: 2 x Cummins KTA19-M total **900BHP**. 2 - FP 48" x 48" props. Gensets: Cummins 4B3.9G. No flanking rudders. Laid-up. **U.S. Gulf Coast.**

File: TP08070 Push Boat: 60.0' loa x 22.0' beam x 9.4' depth x 8.60' loaded draft. Built in 1973 by Phillip Ditta; Harvey, LA. U.S. flag. GRT: 119. FO: 9,500g. FW: 2,500g. Winch: 2 - 20T Nabrico - Hydraulic/Electric. Main Engines: 2 x GM 12V-71 total **800BHP**. 2 - FP props. Gensets: 2 - 30kW / GM3-71. Triple cabin towboat. Eye level 26'. **U.S. Gulf Coast.**





File: TB28011 / TB28008 Double Hull Tank Barge – Inland (Two Available): 297.5' loa x 54.0' beam x 13.0' depth. Built in 2006. Built at Bollinger Marine Fabricators. U.S. flag. GRT: 1,754. NRT: 1,754. Class: ABS + A1 Oil Tank Barge, Rivers (lapsed May 2017 & Aug. 2018, respectively). USCG COI Grade "A" and Lower (expired Jun 2021 & Aug 2017, respectively). Deadweight: 4,500T. Rake(s): Single. Capacity: 28,000bbl. Tanks: 6. Uncoiled. Pumps: 2 - Byron Jackson Deepwell 6,000BPH. Quarters: 2 persons. Double hull. Stern notch. Two cargo systems. Total of 4,239m3 maximum capacity. Bergen high level alarms. Inspection: U.S. Northeast.

USDA Grain Transportation Update: Costs Trend Downward, But Remain High

From the July 28, 2022 edition of the "USDA Grain Transportation Report": Although falling in recent weeks, costs of all major modes of transportation are above last year and historical



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averages. Costs have fallen in response to weakening demand for transportation services. That demand has ebbed because of the typical seasonal downturn, as well as fears of a potential economic slowdown. Rail service has been notably poor in 2022, and grain carloads have generally fallen week to week since March. Although barge rates have fallen in recent months, they remain above prior years. Barged grain volumes in the second quarter were on par with historical averages. According to USDA's July World Agricultural Supply and Demand Estimates (WASDE), total U.S. exports and domestic use of the three major grains (corn, soybeans, and wheat) are expected to fall from marketing year (MY) 2021/22 to MY 2022/23—suggesting a dip in future grain transportation demand.

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Amid Low Carloads, Rail Service Improves Slightly

Grain shippers have dealt with poor rail performance throughout 2022. In the second quarter, carloads originated by U.S. Class I railroads were 11 percent below the 2019-21 average. Carloads have generally declined week to week since late February and early March—from about 24,000 carloads per week to 20,000. In recent weeks, rail service for grain has improved, but still lags historical averages (Grain Transportation Report (GTR), July 7, 2022). Although train speeds for grain trains improved 9 percent for the weeks ending June 22 to July 20, speeds were still below prior years in which higher volumes were shipped. In addition, despite falling almost 40 percent from the peak in late June, the number of unfilled grain car orders (for manifest service) remains well above levels in 2019-21.

The Surface Transportation Board (STB) and railroads have sought to restore service. Following STB's April 2022 hearing, the Board required railroads to submit detailed service recovery plans and new weekly service metrics (GTR, May 19, 2022). BNSF Railway's July 22 "Network Update" noted the company "has deployed an additional 75 locomotives" over the past 30 days and achieved "approximately half" of its hiring plan for 2022. On July 21, Norfolk Southern Railway announced it was increasing pay for its conductor trainees.

Continued restoration of service is critical, especially with the wheat harvest nearly complete and corn, soybean, and sorghum harvests upcoming. Looking forward, secondary market bids for shuttle railcar service in August-December averaged \$510 in the week ending July 14, \$430 above the 2019-21 average. These numbers reflect some recent recovery in rail service, as well as sustained concerns over railroads' ability to handle the upcoming harvest.

Soft Demand Lowers Spot Rate, While Barge Grain Movements Keep to Historical Trend

In second quarter 2022, barge freight rates fell from their peak in March, but remained above a year ago. On the Illinois, Ohio, and Mississippi Rivers, high water early in the quarter reduced flows and restricted tow size. Despite the seasonal dip from the first quarter, rates may still have been elevated from the same period a year ago, because of tight supply.

From the first week in April to the last week in June, the St. Louis spot rate (the cost to request nearby services) dropped from 723 percent of the benchmark tariff (\$28.85 per ton) to 354 percent of the benchmark tariff (\$14.12 per ton). In April, the spot price was 189 percent higher than the same period the year before, and the spot price in June was 77 percent higher than the same period the year before. Also, from the first week in April to the last week in June, the spot price on the Upper Ohio dropped from 781 percent of the benchmark tariff (\$36.63 per ton) to 481 percent of the benchmark tariff (\$22.56 per ton)—77 percent higher than last year and 51 percent higher than the 3-year average.

Weekly grain movements were lower in second quarter 2022 than second quarter 2021, but mostly followed the 5-year historical pattern. Extreme weather, fears of an economic slowdown, and a tight barge supply limited grain shippers' demand for barges in the second quarter. For the week ending July 2, YTD 2022 total downbound barged grain volumes were 18.2 million tons—3 percent higher than the 5-year average, but 15 percent lower than in 2021. Weekly grain movements peaked the week of May 28, reaching 947,300 tons in the second quarter.

Dry-Bulk Freight Rates Continue Slowly Sliding Because of Soft Cargo Demand

As of July 21, ocean freight rates for shipping bulk commodities including grain still exceed the prior-4-year average. However, the rates have fallen 3 weeks in a row. As of July 21, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was \$69—2 percent less than this year's first available rate (January 6), 15 percent less than the same period a year ago, and 28 percent more than the 4-year average. The rate from PNW to Japan was \$40.50 per mt—5 percent more than the start of the year, 8 percent less than the same period last year, and 39 percent more than the 4-year average. Also, as of April 14, the rate from the U.S. Gulf to Europe was \$35.00 per mt—33 percent more than the beginning of the year, 43 percent more than the same period last year, and 64 percent more than the 4-year average. According to the Transportation and Export Report by O'Neil Commodity Consulting (July 21), the falling ocean freight rates are responding to weak cargo demand. The weak demand partly emanates from concerns over a sluggish Chinese economy and fears of a potential global recession. Also, YTD, as of July 21, an average 31 oceangoing grain vessels per week were loaded in the U.S. Gulf, compared to an average 35 vessels per week for the same period last year.

Diesel Prices Drop After Reaching Record Levels in June

From February 28 to June 20, U.S. average diesel fuel prices rose 42 percent, setting a new nominal record of \$5.82 a gallon for the week ending June 20, according to Energy Information Administration data. The price rise reflected pandemic-related reductions in U.S. refining capacity, as well as worldwide challenges since February to replace

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banned Russian exports of diesel and crude oil. Prices have fallen for the last 5 consecutive weeks (June 27-July 25) by 54.2 cents. For the week ending July 25, the U.S. average diesel fuel price fell 16.4 cents from the previous week, marking the largest 1 week decline since October 2008. Yet, despite the steep drop, the resulting price of \$5.268 per gallon remained 198.3 cents above the same week last year. Current Midwest average diesel prices are \$5.241 per gallon. This is 192.8 cents higher than same time last year, but 16.8 cents lower than last week and 53.9 cents lower than the June 20 high of \$5.78. According to the Energy Information Administration (EIA)'s July Short-Term Energy Outlook, U.S. crude oil production is expected to average 12.8 million barrels per day by the end of 2023, driven by elevated crude oil prices. If achieved, the projected 2023 production total will set a record high. Currently, however, because of diminished refining capacity, the United States will produce less gasoline and diesel fuel in 2022 than in 2019. The output will be lower despite maxed-out production by the remaining refineries. Despite the lower output, EIA expects diesel prices to decline through the rest of 2022, and into 2023. EIA expects diesel prices to average \$4.73 per gallon by the end of 2022 and \$4.07 per gallon in 2023.

Outlook for MY 2022/23

Table 1. Major grains: production and use, July 2022					
Million bushels					
	Corn	Soybeans	Wheat	Total	Y/Y
U.S. 2022/23 (projected)					
Production	14,505	4,505	1,781	20,791	-1.9%
Exports	2,400	2,135	800	5,335	-1.6%
Domestic use	12,170	2,370	1,112	15,652	-1.3%
Ending stocks	1,470	230	639		
Total use	14,570	4,505	1,912		
Stocks/use	10.1%	5.1%	33.4%		
U.S. 2021/22 (estimated)					
Production	15,115	4,435	1,646	21,196	5.2%
Exports	2,450	2,170	804	5,424	-9.7%
Domestic use	12,415	2,323	1,122	15,860	2.8%
Ending stocks	1510	215	660		
Total use	14,865	4,492	1,926		
Stocks/use	10.2%	4.8%	34.3%		
U.S. 2020/21					
Production	14,111	4,216	1,828	20,155	
Exports	2,753	2,261	992	6,006	
Domestic use	12,068	2,243	1,120	15,431	
Ending stocks	1,235	257	845		
Total use	14,821	4,504	2,111		
Stocks/use	8.3%	5.7%	40.0%		

Source: USDA, World Agricultural Supply and Demand Estimates, July 2022.

According to USDA's July WASDE, total U.S. exports of the three major grains are expected to reach 5.3 billion bushels in MY 2022/23, down 2 percent from MY 2021/22 (table 1). Over the same period, domestic use is also projected to fall 1 percent, further pushing down the demand for grain transportation. Part of the drop in use is due to fewer supplies. From MY 2021/22 to MY 2022/23, total production of corn, soybeans, and wheat is projected to fall 2 percent (table 1). By commodity, the projections for production are as follows: corn down 4 percent, to 14.5 billion bushels; soybeans up 2 percent, to 4.5 billion bushels; and wheat up 8 percent, to 1.8 billion bushels.

From MY 2021/22 to MY 2022/23, U.S. corn exports are projected to drop 2 percent because of lower production and stable domestic demand for ethanol. Despite lower exportable supplies in MY 2022/23, demand abroad for U.S. corn is projected to be high. This projection derives from expectations of both continued Chinese demand and a market gap left by constrained Ukraine exports. In MY 2022/23, total U.S. soybean exports are projected to be down 2 percent from MY 2021/22, to 58.2mmt. Strong domestic demand and smaller exportable supplies account for the dip in exports. YTD total wheat commitments for MY 2022/23 are unchanged from MY 2021/22.

Total U.S. wheat exports are projected to remain almost unchanged (less than 1-percent decline) from MY 2021/22. Several major exporters, such as Russia and Canada are projected to have larger supplies than in MY 2021/22. Plus, relatively high prices of U.S. wheat are expected to reduce its competitiveness. YTD, 9 percent of total projected MY 2022/23 wheat exports have shipped, and the unshipped balance (5.7 mmt) is up 10 percent over the same period last year. (Article courtesy of: GTRContactUs @usda.gov)

Vessel News

According to the **U.S. Coast Guard Merchant Vessels of the U.S.** database updated 6 July, 2022, 37 towing vessels are listed with 2022 build dates. These range from 25' to 136' LOA, 1,000BHP to 7,125BHP (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.

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Vane Brothers took delivery in March of the final boat in a series of four 3,000HP Salisbury Class push tugs. Named the "Charles Hughes", Vane's newest addition is the twentieth Maryland-built towing vessel to join Vane Brothers' fleet since 2008. Designed and constructed by Chesapeake Shipbuilding Shipbuilders and Naval Architects of Salisbury, Maryland, Vane's beautifully appointed Salisbury Class push tugs have a molded depth of only 10.5 feet, making them well suited for working in confined, shallow-draft waterways. The "Charles Hughes" operational area is the Northeast United States. The "Charles Hughes" three sister tugs, the "Salisbury", "Annapolis" and "Rock Hall",





were delivered in 2019, 2020 and 2021, respectively. Along with providing exceptional crew comfort, reliability and operational efficiency, all four Salisbury Class push tugs comply with federally mandated, U.S Coast Guard-enforced Subchapter M safety standards. Along with the four push tugs, Chesapeake Shipbuilding has supplied sixteen 3,000HP, model-bow tugs. The tug "Charles Hughes" is named in honor of the late Charles F. Hughes, former Vane Brothers Chairman of the Board and the father of Vane's current President, C. Duff Hughes. Charles Hughes was a U.S. Navy veteran, Johns Hopkins University graduate, and Vane Brothers executive from 1951 to 2004. A previous push tug

"Charles Hughes", built in 1975 and rated at 1,800HP, was acquired by Vane Brothers in 1991 and sold in 2019. The classic-looking nameboards from the first "Charles Hughes" were refinished and are now proudly mounted on the new "Charles Hughes".

KOTUG will deploy the KOTUG E-Pusher type M and four barges for zero-emission barging of cocoa beans from **Cargill** between the Port of Amsterdam, the largest cocoa import port in the world, and their cacao facilities in Zaandam. The vessel is equipped with swappable battery energy containers from **Shift Clean Energy** (Shift), which is

part of the revolutionary design of the vessel and will utilize Shift's unique battery swapping and charging stations. Cargill will be the first company with this fully electrified industrial setup for inland shipping. With the 100% electric E-Pusher, KOTUG supports companies that want to build more resilient and sustainable supply chains. The modular and scalable electric pusher tug is powered by swappable energy containers. With this zero emission solution, KOTUG supports the worldwide energy transition and the modal shift from road transport to waterways. Furthermore, due to the modular approach and lean assembly method, KOTUG reduced the



construction time by more than half compared to traditional pusher boats. The E-Pusher type M can push barges with up to 4.000 tons of cargo. The E-Pusher Series consists of three types: Small, Medium and Large, respectively for transportation in inner cities, over short distances and the larger inland waterways. Improving CAPEX and OPEX By using barges, the EPusher concept contributes to a more efficient operation compared to traditional vessels. Efficiency is also achieved with the swappable energy container from SHIFT Clean Solutions; changing the container at one of the battery hubs on-the-go is done in a few minutes. In addition, empty batteries can be recharged at night, taking advantage of possible energy surpluses in the grid. Shift's PwrSwäp Solutions Shift provides swappable energy containers that utilize its zero-emission ESS battery systems which range from 70kWH to 6MWh. These modular ESS battery systems are charged through clean power generation from (bio)gas, hydrogen, and other renewable energy sources either onboard the vessels or at Shift's dedicated PwrSwäp energy stations. By swapping these ESS battery systems, uptime is maximized for the vessel owners. Ard-Jan Kooren, President & CEO of KOTUG International: "We launched the E-Pusher concept in 2021, and the smaller type, the E-Pusher S (the 'CitvBarge One'), is already successfully deployed in several inland waterways and cities....The vessel is designed for transportations like these and guarantees zero-emission logistics and a significantly approved efficiency. As a result, we can support a broad range of industries to turn a part of their supply chain emission-free without extra costs. The applications of the E-Pusher are endless and vary from the transportation of (construction) waste to construction materials to all kinds of products and packages." Paul Hughes, President & Co-Founder Shift Clean Energy: ".... With our PwrSwäp charging stations along the route, as part of the broader Amsterdam-Rotterdam-Antwerp route, we can eliminate any concerns on range anxiety. In our opinion, overcoming this important hurdle will open the door to large-scale electrification of vessels, and thus to zero-emission water transportation. Our PwrSwäp charging stations will be multi-fuel and open access and will provide an important infrastructure improvement for ports and cities as they progress their emissions reduction programs...." Alma Prins, Head Cargo and Offshore at Port of Amsterdam: "....As the largest cocoa import port in the world, many cocoa beans arrive here in Amsterdam. It's great that these can be transported emission-free between the warehouses in our port and the Cargill factories in Zaandam. We want to move towards a climate-neutral port, so the fewer emissions, the better."

Inland Push Boat Market Report – June 2022



After almost two years of construction at shipyard **Hermann Barthel GmbH** in Derben and the transfer to the Westhafen in Berlin, the long-term testing of a unique, innovative and emission-free push boat begins. Petra Cardinal, Managing Director of **BEHALA**, welcomed around 250 guests who gathered at Harbor Basin II. In his opening speech, Federal Minister Dr. Volker Wissing spoke about on the importance of hydrogen mobility to achieve the German government's climate protection goals. "The 'Elektra' is a Lighthouse project: It is the world's first push boat in which battery-electric propulsion is combined with hydrogen and fuel cell technology. The entire project is a blueprint for the climate and environmentally friendly inland shipping, not only technically but also in terms of regulation real

pioneering work." Under the project management of the Dept. of Maritime Systems Design and Operations at the Technical University of Berlin, BEHALA (logistics), shipyard Hermann Barthel, BALLARD Power Systems (fuel cells), Argo-Anleg (hydrogen system), SER Schiffselektronik Rostock (electrical energy system), ESTFloattech (battery system) and HGK Shipping (nautical operation) are involved in the development, construction and testing of the push boat "Elektra". As the first emission-free ship, the "Elektra" will serve as a role model, because its power system is designed to be applicable to a variety of barge and coastal vessel types. Also, this is not only about providing energy for the ship's propulsion and pushing convoys, but also about the energy for the crew, who live, cook and wash on board. Energy, efficiency, features & range In addition to propulsion, the system provides energy for the temperature control of the cabins and the wheelhouse. The battery system also needs a certain 'comfortable temperature' for efficient operation and a long lifespan. All of this must be done with a limited amount of carried energy and without loss of operational range. The waste heat from the fuel cells is used through continuous water cooling and the cabins are heated by a brine heat pump. An additional advantage is that the ship always operates in water with temperatures above 0°C under its keel. The use of a self-developed energy management system and a digital sailing assistant support the captain and logistics planner with the planning of operations and transports. With 750kg of gaseous hydrogen (at a pressure of 500 bar) on board and a battery capacity of approx. 2,500kW hours, the ship has a range of approx. 400km when sailing in combination with the loaded heavy lift barge "Ursus". Therefore, next to the Westhafen in Berlin, only one additional land-based station is needed to supply the "Elektra" with hydrogen and electricity to sail on the waterways of Berlin in the direction of the Rhine/Ruhr, Hamburg and Stettin. In total the vessel can operate push-barge combinations up to 150m in length. The first stations for the changeover of hydrogen tanks and 500kW electric charging stations will be operational in Berlin's Westhafen as well as in the port of Lüneburg in 2023. The TU Berlin has contracted Mittelelbe Business Park and H2 Green Power & Logistics for filling and transporting the tank systems (Multiple Energy Gas Container - MEGC) with green hydrogen until the end of the "Elektra" project at the end of 2024. The MEGC can be exchanged with the onboard crane and the power connection runs via a loading beam that quide the cables to land. This way the handling of the arm-thick cables is very easy for the ship's crew, the vessel is connected to the charging station in a short time and the quayside is free of cables. Testing the "Elektra" will initially take place in the capital region; as of 2023 the tests will also be continued on long-distance routes towards Hamburg. After completion the partnership project will have learned a lot; it will then also be able to say how future commercially viable inland shipping vessels and coastal ships can be optimally equipped for the many purposes in this performance class and what concepts can look like for other ship types and performance classes. With a total project volume of approx. 14.6 million euros, the project is being funded by the Federal Ministry for Digital and Transport funded with approx. 9.1 million euros and supported and coordinated by project manager Jülich and the National Organization for Hydrogen and Fuel Cell Technology.

Company News

Arcosa, Inc announced that second quarter ended June 30, 2022 revenues increased 17% over second quarter 2021 to \$602.8 million, while net income was up 41% to \$39.0 million. Transportation

Products – Revenues were \$88.3 million, up 29% year-over-year,



primarily due to an 80% increase in steel components revenues on higher volumes to support improving demand in the North American railcar market. Barge revenues increased 10% driven by higher pricing related to increased steel input costs. Segment margins remained flat as improved profitability in steel components compensated for lower barge margins. During the quarter, Arcosa received orders of approximately \$35 million in its barge business, representing a book-to-bill of 0.65X. These orders add to its backlog visibility for 2023 and enhance its flexibility as Arcosa waits for an anticipated market recovery. Backlog at the end of the quarter was \$131.8 million compared to \$139.4 million at the end of the second quarter of 2021. Arcosa expects to deliver 50% of its current backlog in 2022 with the remainder scheduled to deliver in 2023.

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Kirby Corporation of Houston, Texas' net earnings attributable to Kirby for the second quarter ended June 30, 2022 of \$28.5 million, compared with earnings of \$10.2 million for the 2021 second quarter. Excluding one-time non-recurring items in the 2022 second quarter, net earnings attributable to Kirby were \$29.8 million. Consolidated revenues for the 2022 second quarter were \$698.0 million compared with \$559.6 million reported for the 2021 second quarter. David Grzebinski, Kirby's President and Chief Executive Officer,

commented, "Both of our segments continued to improve during the quarter, delivering higher revenue and operating income sequentially and year-on-year. In the **inland marine transportation market**, pricing on spot and term contracts continued to move higher, with both renewing higher in the mid-teens. We anticipate continued gradual upward movement in pricing in the second half of 2022 with late fourth quarter term contract renewals setting up for a strong 2023...." Mr . Grzebinski continued, "In our **coastal marine** business, overall market conditions steadily improved during the second quarter, where we did see the few spot contracts that repriced in the quarter renew higher in the low double digits. Utilization rates remained in the low 90% range with modest improvements late in the quarter. These trends, combined with previously announced cost savings actions, and higher coal shipments contributed to coastal marine achieving positive operating margins."

Marine Transportation Marine transportation revenues for the 2022 second quarter were \$405.7 million compared with \$332.9 million for the 2021 second quarter. Operating income for the 2022 second quarter was \$30.8 million compared with \$18.5 million for the 2021 second quarter. Segment operating margin for the 2022 second quarter was 7.6% compared with 5.6% for the 2021 second quarter. In the **inland market**, average 2022 second quarter barge utilization was in the low 90% range compared to the low to mid-80% range in the 2021 second quarter. Operating conditions were fair with limited navigation delays contributing to a 5% decrease in delay days year-on-year. During the quarter, average spot market rates increased in the low double digits sequentially and in the mid-teens compared to the 2021 second quarter. Term contracts that renewed in the second quarter also increased in the mid-teens range on average compared to a year ago. Revenues in the inland market increased 25% compared to the 2021 second quarter primarily due to increased volumes, barge utilization, pricing, and fuel rebills. Rapidly rising fuel costs during the quarter were a headwind to



margins, resulting in operating margins just below double digits. As term contracts renew in the second half of the year and into 2023, we expect to recover these costs, as well as other inflationary costs. The inland market represented 78% of segment revenues in the second quarter of 2022. In **coastal**, market conditions improved modestly during the quarter, with Kirby's barge utilization remaining in the low 90% range. Pricing in the spot market and term contract renewals also increased in the low double digits sequentially and year-on-year. Revenues in the coastal market were 12% higher compared to the 2021 second quarter and represented 22% of segment revenues. The coastal business had a positive operating margin in the low-single digits during the quarter.

Commenting on the 2022 full year outlook, Mr. Grzebinski said, "We exited the guarter with continued momentum in our businesses. The marine market continues to gain strength and while our second quarter results were impacted by higher fuel costs in marine transportation, we expect to recover these costs during the second half of the year and into 2023. Refinery utilization is near historic highs, our barge utilization is strong in both inland and coastal, and rates are steadily increasing.... Overall, we see momentum continuing to build, and we expect our businesses to deliver improved financial results in the coming quarters. While all of this is encouraging, we are mindful of economic challenges related to a potential recession and higher interest rates. Labor constraints and inflationary pressures continue to contribute to rising costs across our businesses. In marine, we currently expect that cost escalators and rate recovery mechanisms in some term contracts will continue lagging these cost headwinds in the third quarter and will ultimately be realized later in the year and into 2023. With these factors in mind, we will continue to focus on managing costs and driving cash flow from operations.... In inland marine, favorable conditions are expected to continue going forward, driven by high refinery and petrochemical plant utilization, increased volumes from new petrochemical plants, and minimal new barge construction across the industry. With Kirby's barge utilization expected to be in the low to mid-90% range and limited new supply in the market, the Company expects further improvements in the spot market, which currently represents approximately 40% of inland revenues. Term contracts are also expected to continue to reset higher to reflect improved market conditions for the duration of the year. Overall, inland revenues are expected to grow by 20% to 25% on a full year basis with continued sequential increases as market conditions remain tight and term contracts renew higher. Material inflation to costs, including high fuel prices, are expected to be continued headwinds but will be mitigated when escalations in contracts occur during the back half of the year and into 2023. Barring further cost inflation and rising fuel costs, the Company expects near term operating margins to be in the

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low double digits and gradually improve during the second half of the year. In **coastal marine**, Kirby expects modestly improved customer demand through the balance of the year with Company barge utilization in the low to mid-90% range. Rates are expected to continue slowly improving, but meaningful gains remain challenged by underutilized barge capacity across the industry. For the full year, with the impact of the Company's exit from the Hawaii market, coastal revenues are expected flat to up in the low single digits compared to 2021. Revenues and operating margins are expected to be impacted by ongoing planned shipyard maintenance and ballast water treatment installations on certain vessels, with offsets from higher coal shipments. Coastal operating margins for the remainder of the year are expected to remain in the low single digits."

Kirby expects 2022 capital spending of between \$170 to \$190 million. Approximately \$5 million is associated with the construction of new inland towboats, and approximately \$145 to \$155 million is associated with marine maintenance capital and improvements to existing inland and coastal marine equipment and facility improvements. The balance of approximately \$20 to \$30 million largely relates to new machinery and equipment and facility improvements in distribution and services, as well as information technology projects in corporate.



Genesis Energy, L.P. reported its results for the second quarter ended June 30, 2022. Net Income Attributable to Genesis Energy, L.P. of \$35.3 million for the second quarter of 2022 compared to Net Loss Attributable to Genesis Energy, L.P. of \$41.7 million for the same period in 2021. In addition to both on and offshore pipelines & refinery services, Genesis operates 82 "brown water" barges and 33 inland river pushboats with a total capacity of abt. 2.3m BBL. Offshore marine "blue water" operations include nine boats and nine coastwise barges (abt. 0.9m BBL

capacity), plus the 330,000BBL capacity ocean-going tanker "American Phoenix".

Grant Sims, CEO of Genesis Energy, said, "We are extremely pleased with the financial performance of our market leading businesses for the second quarter. Our reported Adjusted EBITDA of \$210.1 million, which included a \$32 million gain on sale of assets and some \$5 million of other non-recurring income, exceeded our internal expectations. Even if one were to disregard these one-time benefits, our second quarter results came in approximately \$30 million, or some 20%, over our reported Adjusted EBITDA for the first quarter. Importantly, we achieved a quarterend leverage ratio, as calculated by our senior secured lenders, of less than 4.5 times for the first time since the fourth quarter of 2014. These results were largely driven by a return to normal operations and increasing volumes in our offshore



pipeline transportation segment relative to the first quarter, as well as sequential quarterly growth in each of our other segments, reflective of the positive backdrop for each of our specific businesses....Our offshore pipeline transportation segment out-paced our internal expectations. Not only did we return to normal operations, given some of the non-recurring issues experienced in the first quarter, but we benefited from the beginning of the ramp in production from King's Quay. Murphy, as operator, is expected to bring on the remaining wells that have already been drilled and ramp to King's Quay's design capacity of 85,000 barrels of oil and 100 million cubic feet of gas per day over the remainder of the year. BP's operated Argos floating production facility and the 14 wells pre-drilled at their Mad Dog 2 field development is expected to achieve first oil later this year, although we are awaiting an update of when that might be, and we continue to expect volumes to ramp to its nameplate capacity of 140,000 barrels of oil per day over the subsequent 9 to 12 months after first production. While we have been talking about King's Quay and Argos for quite some time as high profile, new stand-alone developments, there's an exciting amount of in-field drilling and subsea tie-backs that have started production and/or are expected to come on-line in the back half of 2022. In late June, Spruance, operated by LLOG, initiated production at approximately 15,000 barrels of oil per day from a two well subsea tie-back development. We have knowledge of, and have contracts in place for another 5, and possibly 6, infield/sub-sea wells that will initiate production over the coming months representing approximately 50,000 barrels of oil per day of incremental production that will flow through our pipelines, including in all cases through a 100% Genesis owned lateral prior to transportation to shore through either of our 64% owned and operated Poseidon or CHOPS pipeline systems as the case may be. The operators of these developments and their partners have already spent hundreds of millions, if not billions, of dollars on constructing and installing these deepwater production facilities and drilling and completing these new wells. No broader economic slowdown or precipitous drop in oil prices is going to affect the pace of these developments, including the some 160,000 barrels of oil per day we expect in late 2024 and early 2025 from our recently contracted developments, Shenandoah and Salamanca, which we announced last

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quarter. We are in various stages of commercial discussions with multiple in-field, sub-sea and/or secondary recovery development opportunities representing upwards of 200,000 barrels of oil per day that could turn to production over the next 2 to 4 years, all of which have been identified but not yet fully sanctioned by the producers involved. Given this contracted and identified runway of new developments, we could not be more excited about the coming years and decades in the central Gulf of Mexico. This is especially true given the Gulf's importance to secure domestic oil production, its proximity to Gulf Coast refinery complexes and the fact it has the lowest carbon footprint of any barrel of oil refined and consumed in the United States. Market conditions in our marine transportation segment continue to remain strong. We are seeing tremendous demand for all classes of our vessels with utilization at or near 100% across the fleet, and in some cases we are seeing day rates approaching those we commanded in 2015. The supply of maritime equipment is extremely tight as a result of the net equipment retirements over the last few years, the increasing cost of steel and extended timelines to build new vessels. At the same time, demand for maritime equipment is increasing with increased refinery utilization and widening crack spreads for clean and refined products to move from the Gulf Coast to the East Coast, primarily as a result of regional refinery shut downs and certain unforeseen geopolitical events and economic sanctions related thereto. We do not believe a compression of refinery crack spreads or other demand responses to a policy induced slowdown or recession will cause a meaningful change to the current supply and demand dynamic around marine vessels. As a result, we have confidence these market conditions will continue to support stable to increasing financial performance from our marine transportation segment in coming quarters and reasonably normal cyclical markets. We would expect the third quarter to be slightly less than second quarter results as the American Phoenix will be out of service for some 4 to 6 weeks as a result of a scheduled dry-docking. However, upon returning to service she is then scheduled to go on charter with an investment grade counterparty through the end of this year at a rate meaningfully higher than that prior to such scheduled outage.

Marine transportation Segment Margin for the 2022 Quarter increased \$9.1 million, or 108%, from the 2021 Quarter. This increase is primarily attributable to higher utilization and day rates in Genesis' inland business and higher day rates in its offshore business, including the "M/T American Phoenix", during the 2022 Quarter. Genesis has continued to see an increase in demand and utilization of its vessels as refinery utilization has increased and the supply of like maritime equipment is tight due to net equipment retirements. While Genesis has continued to see increases in its day rates from both the 2021 Quarter and sequentially from the first quarter of 2022, it has continued to enter into short term contracts (less than a year) in the inland and offshore markets, including the "M/T American Phoenix", because it believes the day rates currently being offered by the market have yet to fully recover from their cyclical lows.

Offshore pipeline transportation Segment Margin for the 2022 Quarter increased \$35.9 million, or 43%, from the 2021 Quarter primarily as a result of: (i) distributions received from one of Genesis' unrestricted subsidiaries, Independence Hub LLC, of \$32 million for the sale of its 80% owned platform asset; (ii) increased crude oil and natural gas activity and associated revenues during the 2022 Quarter, primarily as a result of first oil being achieved on April 12, 2022 at the King's Quay floating production system; and (iii) contractual minimum volume commitments ("MVCs") at King's Quay and Argos that began in the 2022 Quarter and contributed to Genesis' reported Segment Margin. The King's Quay floating production system, which is supporting the Khaleesi, Mormont and Samurai field developments, is life-of-lease dedicated to its 100% owned crude oil and natural gas lateral pipelines and further downstream to its 64% owned Poseidon and CHOPS crude oil systems or its 25.67% owned Nautilus natural gas system for ultimate delivery to shore. While the volumes during the 2022 Quarter from King's Quay were below the contracted MVCs, Genesis was still able to recognize its MVCs in Segment Margin. Genesis expects King's Quay to ramp up to its design capacity over the remainder of the year as the operator brings the remaining wells on-line. In addition, it has contractual MVCs that began in the 2022 Quarter associated with the Argos floating production system (which supports the Mad Dog 2 development), and are included in its reported Segment Margin during the 2022 Quarter. Argos is expected to have first oil in the second half of 2022. These increases more than offset the effects from Genesis' decrease in ownership of CHOPS, as it sold a 36% minority interest on November 17, 2021.

