



d'Amico Group  16 hours ago 3 min read

Results of d'Amico Group-led marine biofuel trial show positive findings



Photo: d'Amico Group

A joint industry project launched in June to test a 30 percent blend (B30) of marine biofuel derived from renewable feedstock to power a d'Amico Group LR1 product tanker showed very positive findings in terms of CO₂ emissions reductions, reduced carbon intensity, and stable NO_x emissions. The results of the trials showed that the B30 biofuel blend is a viable solution to comply with EU fuel regulations being introduced January 2025 on the use of renewable and low-carbon fuels in maritime transport. The trials also showed that depending on the scale-up of feedstock production worldwide, adding the biofuel blend as a “drop in” to traditional maritime fuels is a viable measure to reduce emissions.

“Biofuel is one of the decarbonization strategies we are exploring in d'Amico for the existing tonnage,” said Salvatore d'Amico, fleet director at d'Amico Group. “While we are closely monitoring the development of alternative fuels of the future, new technology for the propulsion and continue to invest in innovative digital solutions, we do believe that using the biofuel blend can speed up the decarbonization of the maritime transportation with an immediate effect on the existing tonnage.”

Following these results and ahead of the new regulations, the d'Amico Group has certified through the flag administration all its LR1 vessels to operate permanently with the B30 biofuel blend. The group also intends to

certify its entire fleet and to test B40 and B50 blends following the same methodology during 2022.

“Our joint industry project has demonstrated that using the lifecycle analysis, the saving of CO₂ is relevant with a good effect also on the short-term measures adopted by the International Maritime Organization,” said Cesare D’Api, deputy technical director at d’Amico Group. “NO_x emissions are not an issue, handling and management are easier. Our LR1 fleet is now ready and certified permanently to burn B30. Our outstanding team is ready to certify the entire fleet.”

The trial followed the appropriate EU fuel regulations and guidelines on calculating CO₂ emissions using well-to-wake (WTW) analysis. The results were:

- A 4.3 percent reduction of CO₂ emissions per ton of fuel and a resulting carbon intensity indicator (gCO₂/dwt metric ton mile) of 3.99, with an improvement of 3.5 percent using very low sulfur fuel oils allowing an “A” vessel rating until 2026
- Confirmation from class and flag state that the B30 biofuel blend does not affect the Tier II certification of the engines for NO_x compliance—both main engines and diesel generators were tested for NO_x compliance using the data measured allowed by the NO_x technical code
- An effective CO₂ emissions reduction per ton of fuel by 25.3 percent, applying the Defra methodology—this methodology was used in anticipation of the approval of the WTW analysis framework by the International Maritime Organization and awaiting from the IMO clear indications on which methodology will be applied

The trials were conducted from June 19 to July 6 on board the d’Amico Group LR1 product tanker vessel *M/T Cielo di Rotterdam*. The biofuel blend B30 was supplied by Trafigura maritime fuel supply and procurement joint venture TFG Marine in the Amsterdam-Rotterdam-Antwerp region.

“As one of the world’s largest commodity trading and logistics companies, we are committed to reduce maritime carbon emissions, including by investing in the development and supply of transitional fuels such as biofuels,” said Jamie Torrance, head of distillate and fuel-oil trading for Trafigura. “TFG Marine, Trafigura’s joint venture marine fuel supply business with Frontline and Golden Ocean, now regularly delivers biofuels to customers in the Amsterdam-Rotterdam-Antwerp region, with plans to expand this offering further afield during 2022.”

This important project demonstrated how industry players are increasingly working collaboratively to reach joint decarbonization goals. The combined strategic vision and technical capabilities of charterers, original engine manufacturers, shipowners, fuel suppliers and regulatory bodies confirm how research studies can be shared to explore all options to decarbonize shipping.

“Biofuels will certainly be in the mix of solutions to achieve the IMO 2030 and [the EU fuel] targets to reduce greenhouse gas emissions,” said Giosuè Vezzuto, RINA Services’ executive vice president of marine. “No technology can be ruled out at this stage and the positive results of the trial show that this approach can be made effective in a short space of time on the existing fleet. Decarbonizing the shipping sector is a challenge that no player can win alone—and initiatives such as d’Amico’s set the pace.”