

The green fuel engines of the future are on the drawing board today

The large two-stroke engines from MAN Energy Solutions account for approximately 1.5 percent of the world's CO₂ emissions. The company is now investing heavily in the sustainable transformation.

A company with a global footprint and a global responsibility. That's probably the best way to describe MAN Energy Solutions. Every day, the company's huge 2-stroke engines operate thousands of container vessels, dry cargo vessels and tankers that transport goods and raw materials across the globe. On the back of such huge commercial success, the company needs to take an even greater responsibility for the environment, according to Principal Strategist Anders Kryger:

"At MAN Energy Solutions, we are very much aware that we are an important player in the transition to sustainable development, and we have chosen to sign the 'Getting to Zero Coalition' through the Global Maritime Forum. Today, we are implementing a strategy for both carbon-neutral and carbon-free fuels. It's our ambition to exceed the sustainability goals set by the International Maritime Organization and the EU."

A transition to climate-neutral shipping, however, cannot be solved by MAN Energy Solutions alone, according to Anders Kryger. International partnerships are needed:

"Sustainable transformation of the shipping industry is very complex and involves a broad group of stakeholders. Firstly, there is the availability of green fuels, which in itself is a challenge. Next, there is a need for a new energy infrastructure, and finally there is a need for legislation that increases taxes on fossil fuels and at the same time supports financing of green infrastructure. Those are factors that have to be aligned."

Sustainable Development Goals at play

SDG 13: Climate action

Take urgent action to combat climate change and its impacts



SDG 17: Partnerships for the goals

Strengthen the means of implementation and revitalize the global partnership for sustainable development



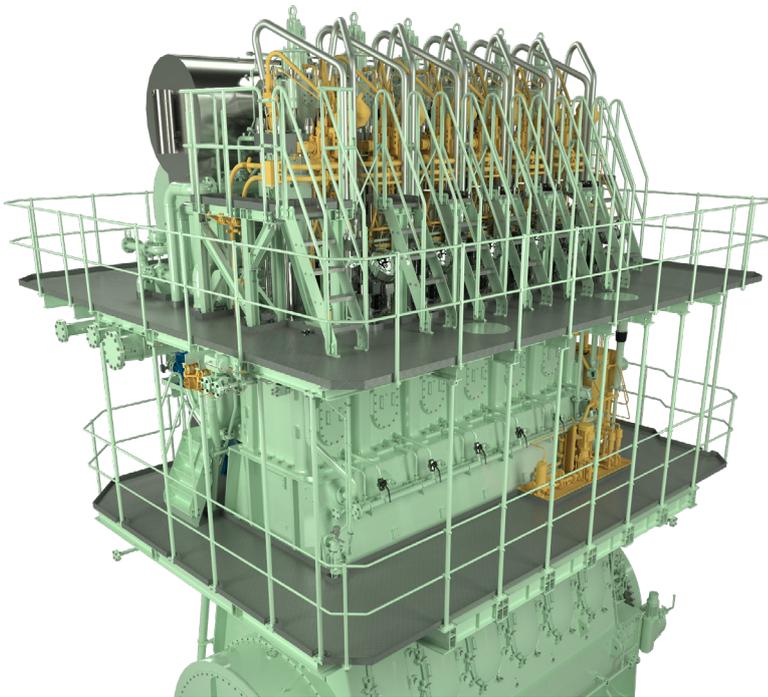
Especially fuel is considered a hot topic in the shipping industry today, according to Anders Kryger:

“Everyone is trying to find ‘the one’ when it comes to the fuel of the future, but in reality, it will probably have to be a combination of different options. On one hand, we have carbon-neutral fuels such as synthetic methanol; on the other hand, there are also carbon-free fuels such as ammonia. For example, we plan to put the first ammonia engine into operation in 2024. This is a big bet on our part given that the fuel is not yet available. It shows our commitment to decarbonisation.”

Future-proof design

One thing is to develop new types of fuel; another thing is to future-proof a ship that is likely to cruise the oceans for the next 25 years. According to Anders Kryger, the solution to this challenge also has to be retrofitting, i.e. engines that are specifically designed to be rebuilt:

“We have just retrofitted eleven ships from diesel to liquefied petroleum gas, LPG, which is a good example of how the existing fleet can be adapted to new types of fuel.



From the ongoing dialogue with our customers, we know that this is a crucial parameter when investing in new ships. Given the longevity of the investment, shipping companies now demand maximum flexibility when it comes to fuel.”

In addition to retrofitting, MAN Energy Solutions is also working to improve the data platform for monitoring emissions – an initiative that was clarified and deepened during the UNDP SDG Accelerator programme, according to Anders Kryger:

“Everything points to the fact that authorities and other stakeholders will push for further documentation of emissions, and as a large supplier of engines we play a crucial role. To follow the development, we have spent a lot of time mapping historical emissions as well as coming up with a prediction towards 2050. It’s a complex process based on many data sources and behavioural trends in the shipping industry.”

At the end of the day, the behaviour of shipping companies – along with legislation – will be the key driver of sustainable transformation in the industry, according to Anders Kryger:

“In 2021, the so-called dual fuel engines made up approximately 30 percent of our orders. It’s fair to say that things are moving in the right direction, but slowly and only driven by a few ambitious frontrunners at the moment. On the positive side, however, we see a clear multiplier effect, meaning that when large shipping companies start ordering green ships, others will follow. Hopefully, we can create this upward spiral together and create real progress very soon.”

THIS IS HOW MAN ENERGY SOLUTIONS CONTRIBUTES TO ACHIEVING THE SDG’S

- MAN Energy Solutions is in the process of converting its business from diesel engines to carbon-neutral and carbon-free fuels.
- The company works on developing new engines and retrofitting the existing commercial fleet.

FACTS ABOUT MAN ENERGY SOLUTIONS

- The world’s largest developer of ship engines for the commercial fleet.
- Rooted in the old Danish shipyard Burmeister & Wain, est. 1846.
- Owned by Volkswagen Group.
- Headquarters in Augsburg, Germany.
- Approx. 14,000 employees globally.



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