



Repairing engine components saves huge amounts of CO₂

Since 1979, PJ Diesel Engineering has been repairing components for marine engines. A new international accreditation could be the entry point to the global market.

It sounds like an obvious solution: instead of disposing of damaged components from ship engines and replacing them with new ones, the components can be repaired and re-used with huge CO₂ saving as a result. Unfortunately, this kind of recycling breaks with the traditions in the shipping industry. A new international accreditation is likely to pave the way for change, according to Vice President, Sales in PJ Diesel Engineering, Mikkel Elsborg:

“From the very beginning in 1979, our ambition was to repair and give new life to old engine components. In this sense, re-manufacturing has always been at the core of our company. What has changed, however, is the world around us. It’s amazing to see how, after 40 years, we suddenly find ourselves at the centre of the green economy.”

The change referred to by Mikkel Elsborg is the global focus on energy-saving solutions and the desire to significantly reduce the carbon footprint of the shipping industry:

“Today, our repair processes are so precise that we can repair components back to the standard they had as new. Doing so, shipping companies avoid discarding components that are extremely expensive. A rotor in a turbocharger can cost up to 300,000 EUR. At the same time, calculations show that we can save up to 92 percent CO₂ compared to purchasing a new component.”

Sustainable Development Goals at play

SDG 12: Responsible consumption and production

Target 12.5: Substantially reduce waste generation

By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.



Why have components not always been repaired? According to Mikkel Elsborg, because manufacturers have traditionally decided when a component should be replaced:

“For many years, the shipping industry has embraced the idea that only the manufacturer was able to assess whether a component should be replaced or repaired. This is exactly the mindset we are trying to change. The old way of doing things is not an optimal solution neither for the customers, the components, nor the environment.”



A ground-breaking accreditation

According to Mikkel Elsborg, PJ Diesel Engineering has spent more than a decade trying to obtain an international accreditation of the company's repair processes. In the autumn of 2021, the company finally succeeded:

“The international classification company RINA finally gave us its stamp of approval, which is ground-breaking for our entire business. The accreditation clearly states that repaired components from our workshops are comparable to new ones. For shipping companies, besides saving money and CO₂, this means that there is full insurance coverage when they choose our components. The accreditation can even override a manufacturer, as RINA acts on behalf of the flag. This opens up the window to a whole new world of opportunities for re-manufacturing. We're seeing the culmination of many years of hard work.”

In the UNDP SDG Accelerator programme, PJ Diesel Engineering has continued its work with re-manufacturing and circular business models, according to Mikkel Elsborg:

“We are very enthusiastic about the UNDP SDG Accelerator programme, which has given us a fantastic opportunity to get support from experts and other companies in the industry. At the same time, we have also worked to solidify our data model, which is an important element in sustainable transformation. Today, we offer complete CO₂ calculations when we receive a component for repair. We clearly see a trend where customers, authorities and investors demand thorough and validated documentation.”

In sum, Mikkel Elsborg is optimistic about the future:

“With the international accreditation from RINA, we now have a much better opportunity to convince the world's shipping companies about how we can help them save money and reduce their carbon footprint significantly. Although re-manufacturing breaks with many old habits, we're convinced that they will listen. After all, we've been in this business for 42 years. Thankfully, we are not starting from scratch.”

THIS IS HOW PJ DIESEL ENGINEERING CONTRIBUTES TO ACHIEVING THE SDG'S

- PJ Diesel Engineering can repair engine components back to the standard they had as new.
- After more than a decade of intensive work, the company has been one of the first of its kind to achieve an international classification of its repair processes.

ABOUT PJ DIESEL ENGINEERING

- Established in 1979.
- Workshops in Copenhagen and Rødby, Denmark.
- Specialised in repairing engine components in ships, including turbochargers.
- Customers worldwide.
- Approx. 35 employees.



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Vice President, Sales
PJ Diesel Engineering