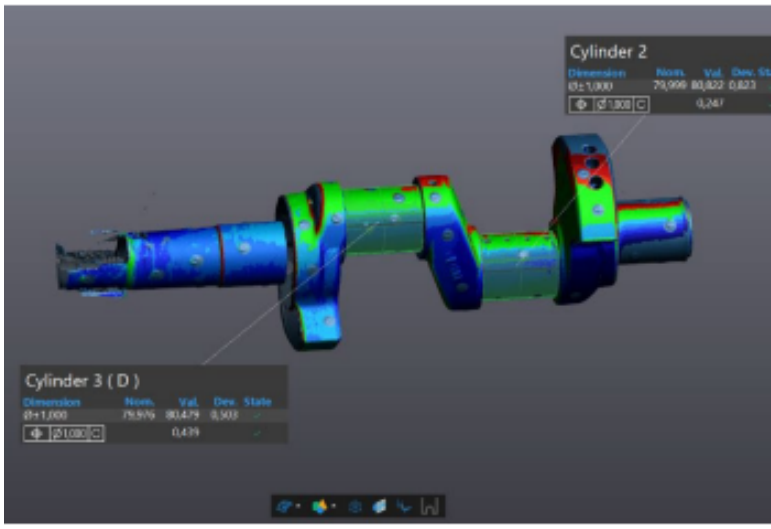
r3-MYDAS

NEWSLETTER #2 JUL 2024

REMANUFACTURING, REPURPOSING AND RECYCLING ENERGY GOODS THROUGH ADVANCED MECHATRONIC AND DIGITAL TECHNOLOGIES

Advancements in Automated Crankshaft Repair in the Oil & Gas Sector



As part of our ongoing efforts to revolutionize crankshaft repair in the Oil & Gas sector, we have progressed to the next stage of our project by conducting more specific tests on crankshafts sourced directly from the industry. These tests have been crucial in refining techniques and ensuring that methods are highly effective under real-world conditions.

To further automate the repair process, it was integrated both sensors into the robotic system. As part of this integration, it was conducted a visit to the facilities to define the requirements and capabilities of the work cell.

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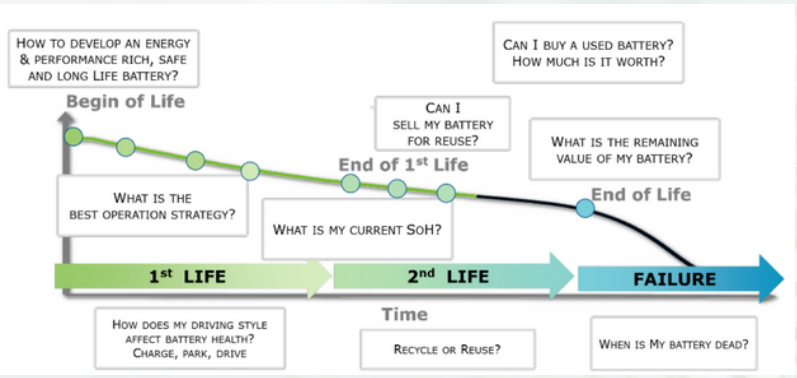

Electric Vehicle Battery End-of-Life Management

The European Union's Battery Regulation mandates that electric vehicle (EV) manufacturers and their supply chain partners disclose detailed battery information to trading partners, end users, and regulatory authorities.

Compliance with these regulations requires that not only must this information be shared, but its accuracy and timeliness must also be verifiable. Regulators need the ability to trace and authenticate the battery data and the related claims provided.

End-of-life (EoL) for a product is defined as the point at which it can no longer fulfil its original function, typically when an EV battery is decommissioned due to damage or insufficient operational capacity.

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Methodologies for evaluating high-strength gear materials

The demand of wind energy is continuously increasing, given its green potential. In fact, the tendency through the last years has been to build bigger and bigger wind turbines, to achieve greater energy generation power and reduce the levelized cost of energy.

Despite the growing size of wind turbines, the requirements for the gearboxes (responsible for the conversion of the high-torque and low-speed motion of the rotor to the low-torque and high-speed motion the generator) have become more restrictive.

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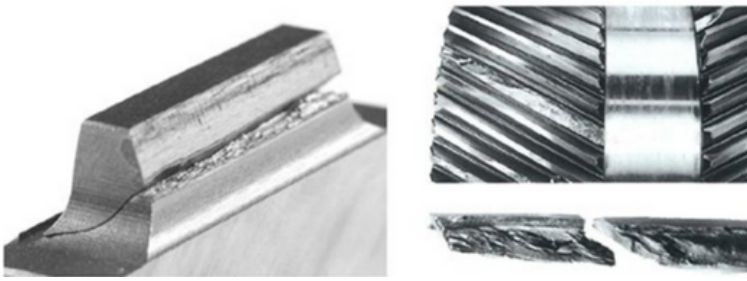

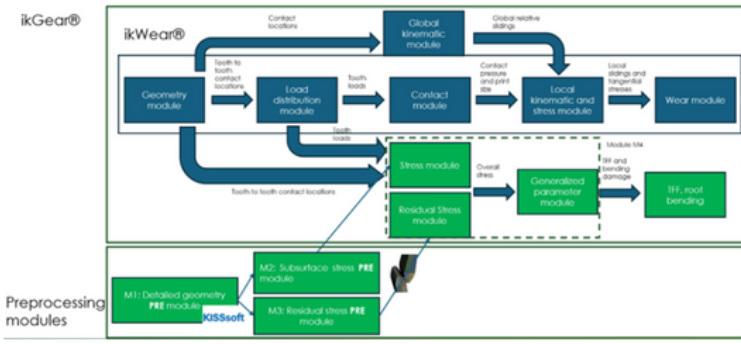

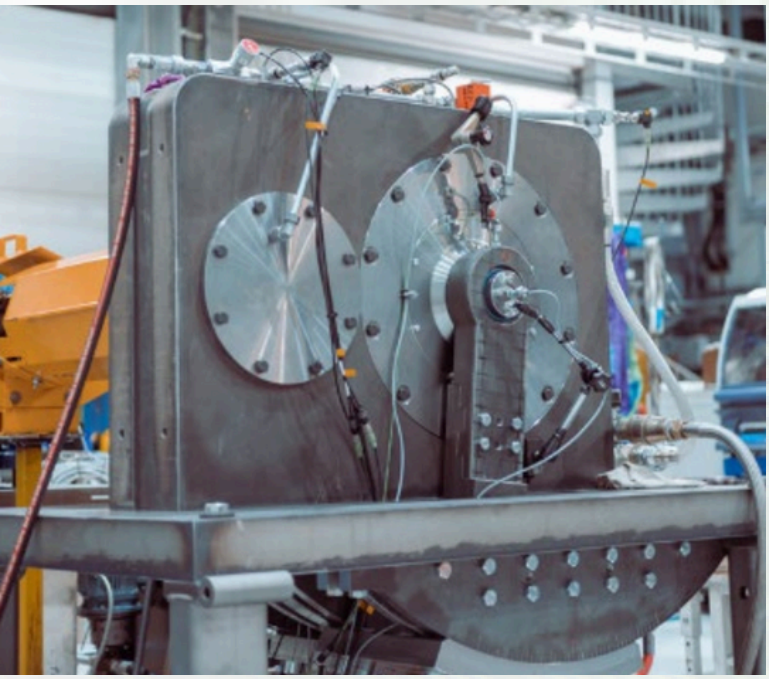

FLENDER to participate in R3-Mydas project to exploit state-of-the-art remanufacturing technologies for high torque density journal bearing gearboxes

Flender as part of the R3-Mydas project is developing and building a dynamic tester for the wind drivetrain application. Flender has over 40 years of experience in developing wind turbine drivetrain solutions and technology, upon which the R3-Mydas project dynamic tester is built.

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