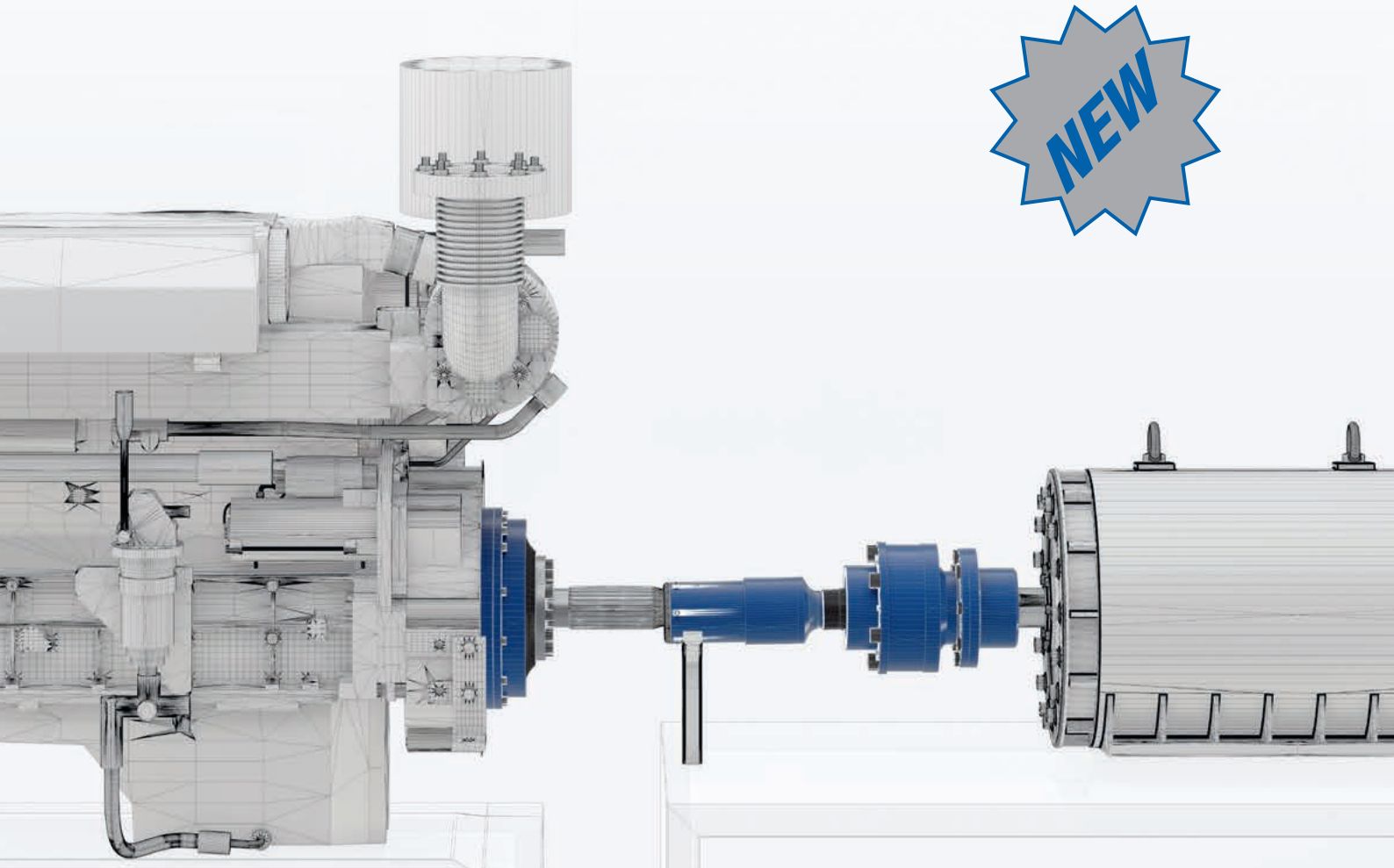
Reich Kupplungen

Adaptive TOK-Docking-System for Engine Testing



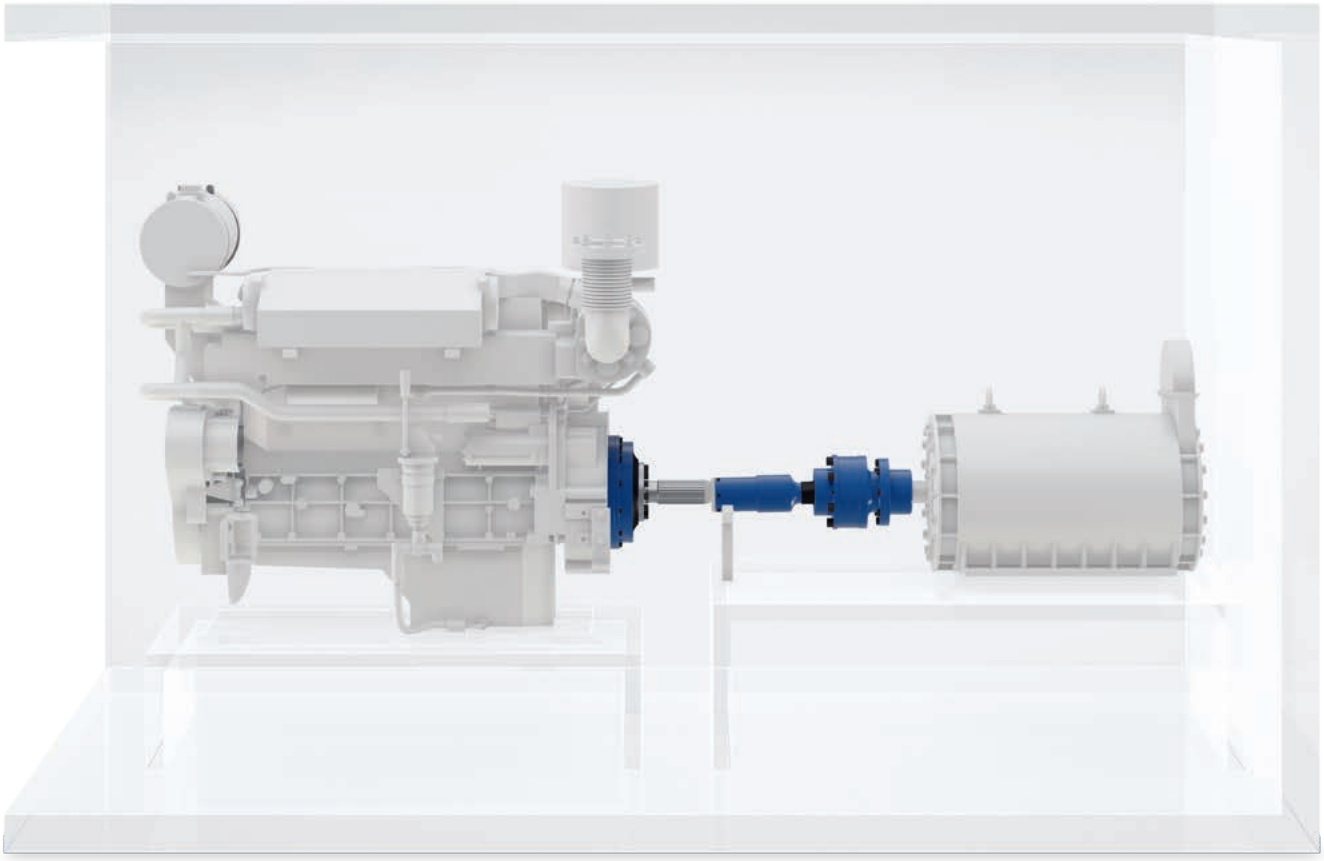
Your drive is our strength. Your strength is our drive.





More productivity, reduced rigging times, less operating costs – the new Docking-System from REICH-KUPPLUNGEN helps increase the efficiency of engine test benches.

This system is designed to automate the process of changing the test objects for combustion engine testing to the greatest possible extent. The time available for testing is thus maximised. This is made possible by a docking system which is based on the principle of modular construction. It is used to connect combustion engines of different sizes to a dynamometer. This way, engine testing is made easy.



Arrangement of the adaptive docking system

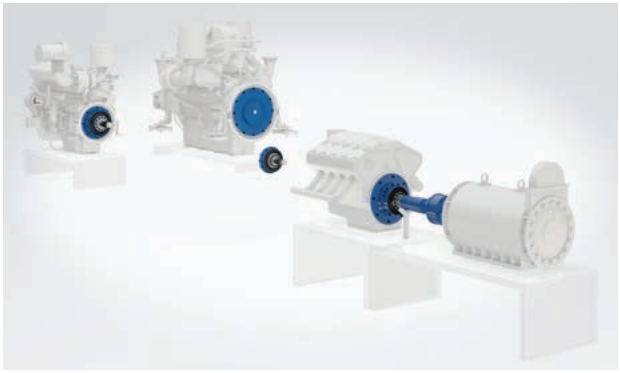
Flexible docking and centering fixture

The special feature of the docking system is its self-docking and self-centering fixture. It consists of a pin and a sleeve which are both straight-toothed. The two components are available in a standard size and mounted to a coupling matching the engine to be tested.

Rigging additional engines while testing

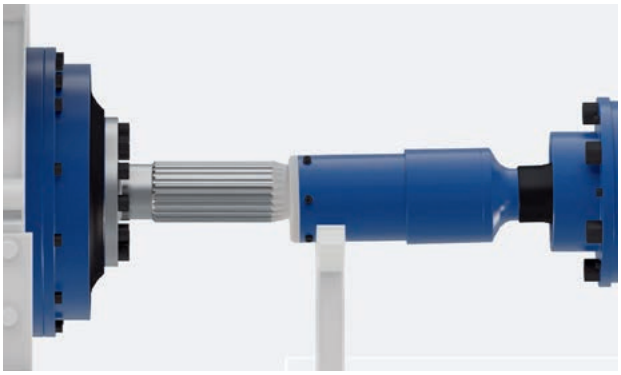
This fixture allows for preparing other engines to be tested while one engine still undergœs testing. Rigging only involves the mounting of the matching coupling with the standard pins to the engine. Given that this work is performed outside the test bench area, the rigging times are minimised in the test cell.

Minimised rigging times



Minimised rigging times through simultaneous preparation of the engines

Self-centering



Self-centering feature – no manual centering required

Self-alignment and self-centering

The smartly designed centering attachments are able to compensate for an offset of up to 15 mm while docking. The CV-jointed sleeve on the dynamometer side rests on a support while the engine with the mounted TOK coupling and the toothed pins is slowly approaching its destination. While docking, the sleeve is lifted off the centering attachment and turned until the toothed components come into mesh.

Advantages of the adaptive TOK-docking system:

> There is no longer need for complex mechanics and manual intervention on the dynamometer side. A correctly positioned, solid support is sufficient.

> Rigging with time-consuming assembly operations takes place outside the test cell.

> Rotational speeds up to 6,000 rpm are possible.

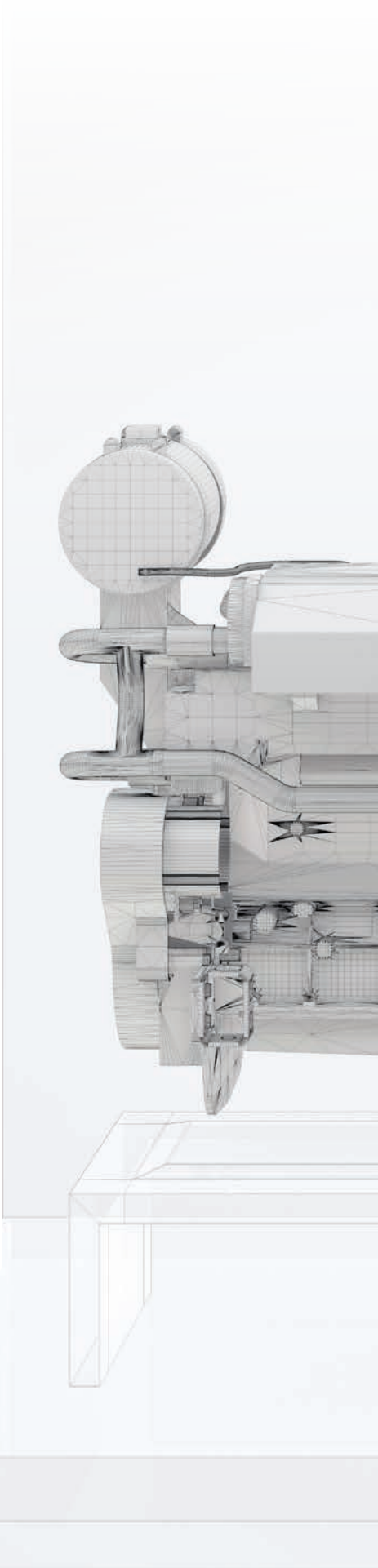
> All toothed shaft components of a system come into mesh in any turning position while maintaining a good balance condition.

> Centering attachments are available as spare parts and easily changeable.

> The docking system can be extended to multiple test cells.

TOK coupling system:

REICH-KUPPLUNGEN offers matching coupling shafts and highly flexible couplings for a great variety of combustion engines. Rated for rotational speeds up to 10,000 rpm and equipped with a high torsional flexibility and torque transmission capacity from 100 – 70,000 Nm, they are perfectly suited for demanding test bench applications. Detailed catalogues and documents are available.



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