

TOK DOCKING SYSTEM

Adaptive System for Engine Testing

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SIMPLY **POWERFUL.**



TOK DOCKING SYSTEM

General Technical Description

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More productivity, shorter set-up times, lower operating costs – the new REICH docking system will 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.

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 is still undergoing 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, rigging times are minimised in the test cell.

Self-alignment and self-centering

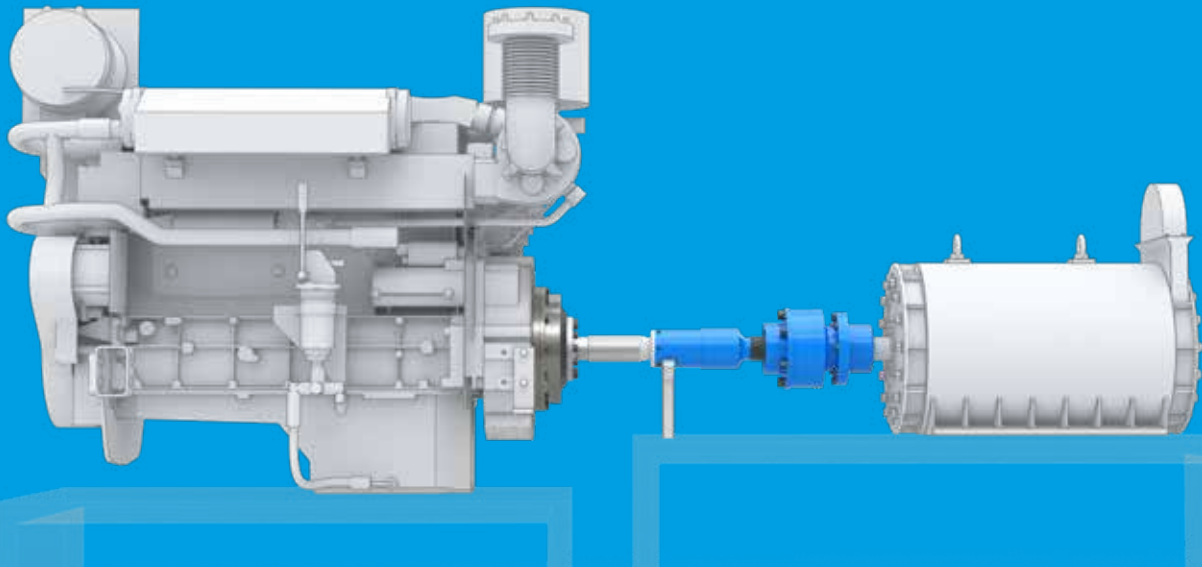
The smart design of the centering attachments allows them to compensate for an offset of up to 15 mm while docking. While the engine with the mounted TOK coupling and toothed pins is slowly approaching its destination, the CV-jointed sleeve on the dynamometer side rests on a support.

While docking, the sleeve is lifted off the centering attachment and turned until the toothed components engage.

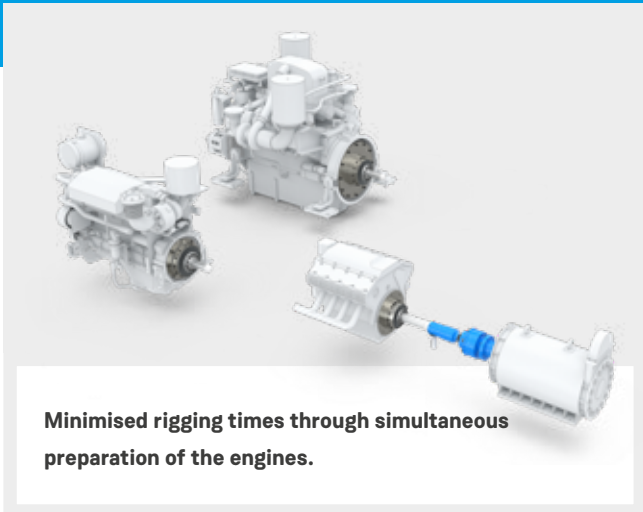
TOK coupling system:

REICH offers the right coupling shafts and highly torsionally flexible couplings tailored to various combustion engines.

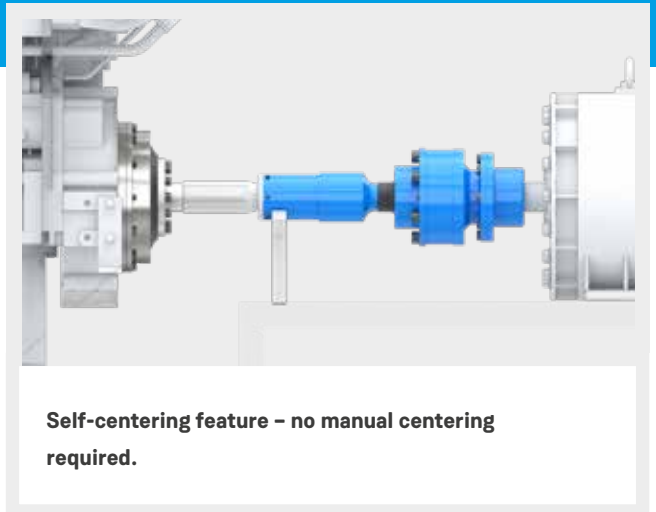
With rotational speeds of up to 10 000 min⁻¹ and equipped with a high torsional flexibility and torque transmission capacity from 100 Nm to 70 000 Nm, they are perfectly suited for demanding test bench applications. Detailed catalogues and documents are available.



Arrangement of the adaptive docking system.



Minimised rigging times through simultaneous preparation of the engines.



Self-centering feature - no manual centering required.

TOK DOCKING SYSTEM

Advantages

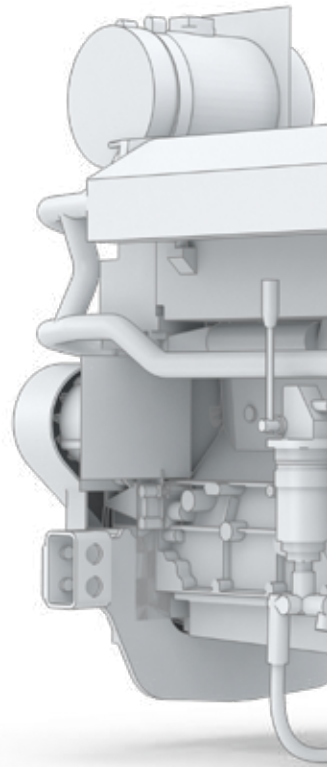
Salient features and advantages of the adaptive TOK DOCKING SYSTEM:

- 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 procedures takes place outside the test cell
- Rotational speeds of up to 6 000 rpm are possible
- All the toothed shaft components of a system engage in any turning position while maintaining good balance
- Centering attachments are available as spare parts and easily changeable
- The docking system can be extended to multiple test cells









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SIMPLY POWERFUL. 





Industrial solutions:


-  Power generation
-  Mobile applications
-  Test benches
-  Pumps & compressors
-  Industry
-  Ship & port engineering

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