

SMART & CONNECTED POWERTRAIN SOLUTIONS

The innovative integrated SMART Technology provides status information from the powertrain



► WE MAKE POWERTRAIN
INFORMATION AVAILABLE

SMART & CONNECTED:

Creating value out of Powertrain information

The powertrain is one of the most critical parts of a machine. It ensures power transmission from the engine to the application.

The new Walterscheid SMART & CONNECTED powertrain technology enables that all data needed to optimize and maintain the performance of your powertrain becomes available to your application. The technology is applicable to a wide range of Walterscheid's powertrain components.

SMART & CONNECTED POWERTRAIN SOLUTIONS

APPLICATION



Enable SMART applications by plug & play sensor functionality

PRODUCT



Provide live operation and service data to machine operators

SERVICES



Provide all relevant product and service data in electronic form

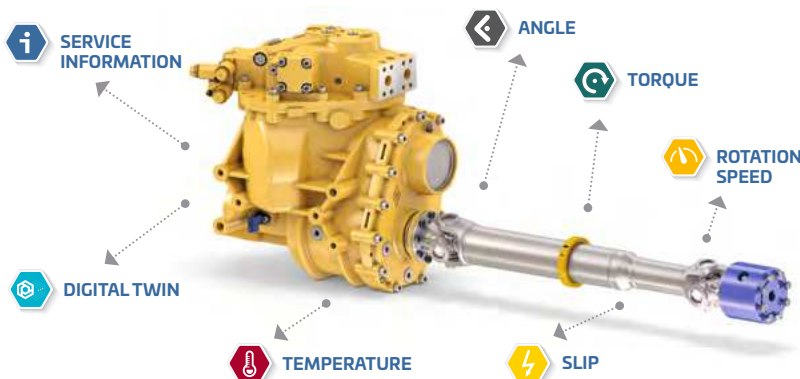
WE MAKE POWERTRAIN INFORMATION available to your application



APPLICATIONS



TECHNOLOGY



VALUE

- ▶ Increased machine availability
- ▶ Less maintenance effort
- ▶ Lower risk
- ▶ Longer component lifetime
- ▶ Increased efficiency
- ▶ Life-cycle oriented services

WE MAKE POWERTRAIN INFORMATION available to your application



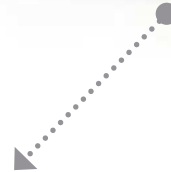
SERVICE INFORMATION



DIGITAL TWIN



TEMPERATURE





ANGLE



TORQUE



**ROTATION
SPEED**



SLIP



SMART & CONNECTED

Use Cases

MAINTENANCE



- ▶ Predictive and condition based monitoring
- ▶ Early wear detection
- ▶ Prediction of service and repair intervals
- ▶ Increased powertrain availability

INTELLIGENT MACHINES



- ▶ New machine functionality
- ▶ Process optimization based on detailed mechanical load data
- ▶ Efficiency and performance indicators available

SERVICE



- ▶ Relevant product and service information available
- ▶ Spare part lists and instructions available
- ▶ Remote diagnostic by powertrain experts

TESTING



- ▶ Real duty-cycle information available
- ▶ Behavior and performance analysis included
- ▶ Powertrain design improvements based on field tests
- ▶ Performance tracking over the whole product life-cycle

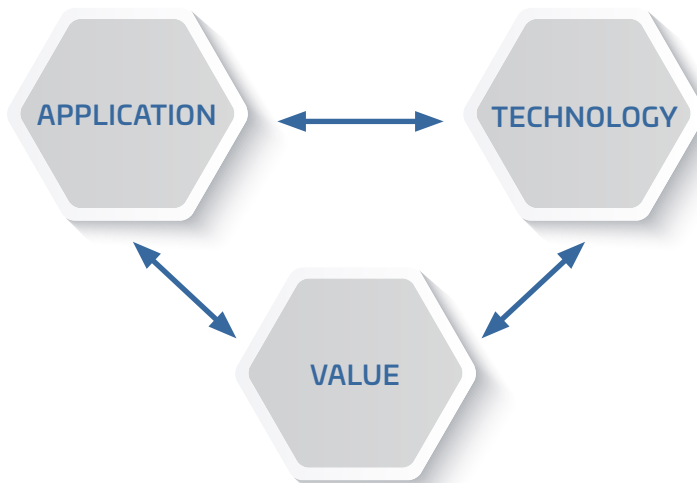
SMART & CONNECTED Engineering Service



SMART & CONNECTED powertrain solutions are designed by us to bring a value to your individual application.

SMART & CONNECTED powertrain engineering service offers:

- ▶ Application specific design
- ▶ Agile prototype creation
- ▶ Innovative sensor concepts
- ▶ Life-cycle oriented design



SMART & CONNECTED enough?

Contact our staff to learn more and discuss the potential of SMART & CONNECTED in your equipment and operations.

Off-Highway Powertrain Services Germany GmbH
Hauptstraße 150
D-53797 Lohmar

E-Mail: smart.connected@walterscheid.com