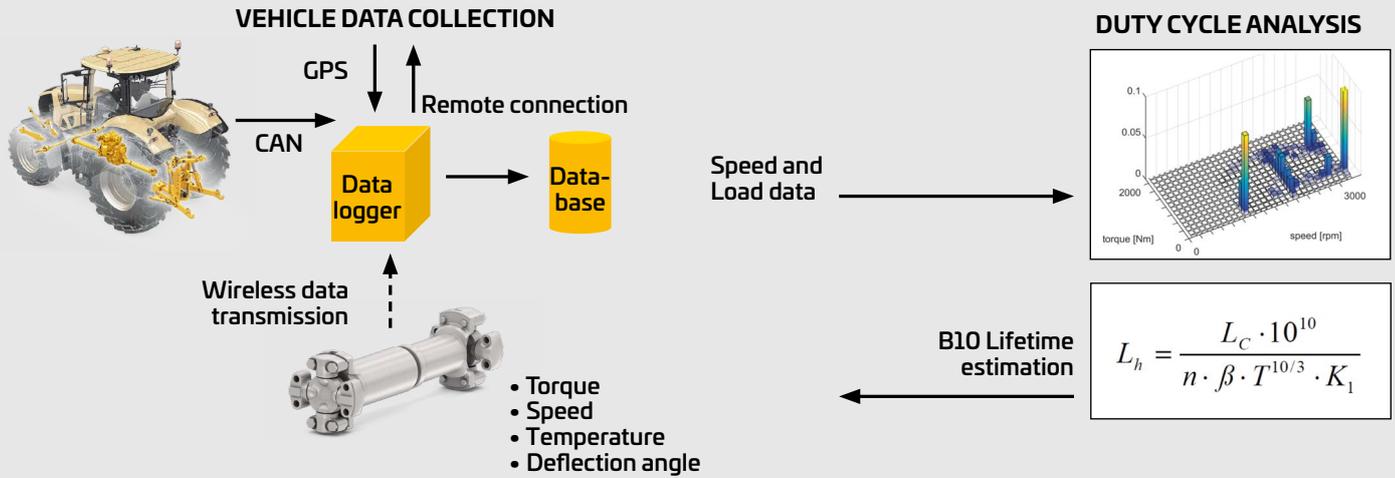


Duty Cycle-as-a-Service



Design cardan shafts the clever way!

Every calculation model is only as good as its input. There is now a clever way to perform duty-cycle analyses in the powertrain to determine whether powertrains are correctly dimensioned. The measurement technology of the Walterscheid Powertrain Group makes it possible! We integrate measuring systems directly into the cardan shaft and thus make duty cycle analyses in real operation directly available to our customers. This service expands our existing portfolio for calculating the service life of cardan shafts.

Our Deliverables

Engineering service including:

- ▶ Recording of driveline parameters under realistic driving conditions
 - Drive shaft torque
 - Bearing temperature
 - Rotation speed
 - Vibration
 - GPS Position
- ▶ Calculation of duty cycle and resulting component lifetime
- ▶ Assessment of drivetrain design
- ▶ **Risk assessment** of potential drive shaft failure modes
- ▶ **Detailed report from powertrain experts**
- ▶ Onsite presentation and discussions of implications

Customer Value

- ▶ **Purchase decision-making simplified:** assists in selecting right drive shaft size for the application
- ▶ **Drivetrain design optimization** leading to, for example, noise reduction, efficiency improvement, lifetime improvement
- ▶ **Reduced total cost of quality:** Design review and risk assessment by drivetrain experts; avoiding costly redesign and recall at a later stage
- ▶ **Improved user comfort:** vibration and noise reduction through design improvements
- ▶ Improvement of the lifetime by a factor of 10 through application-appropriate dimensioning of the powertrain

