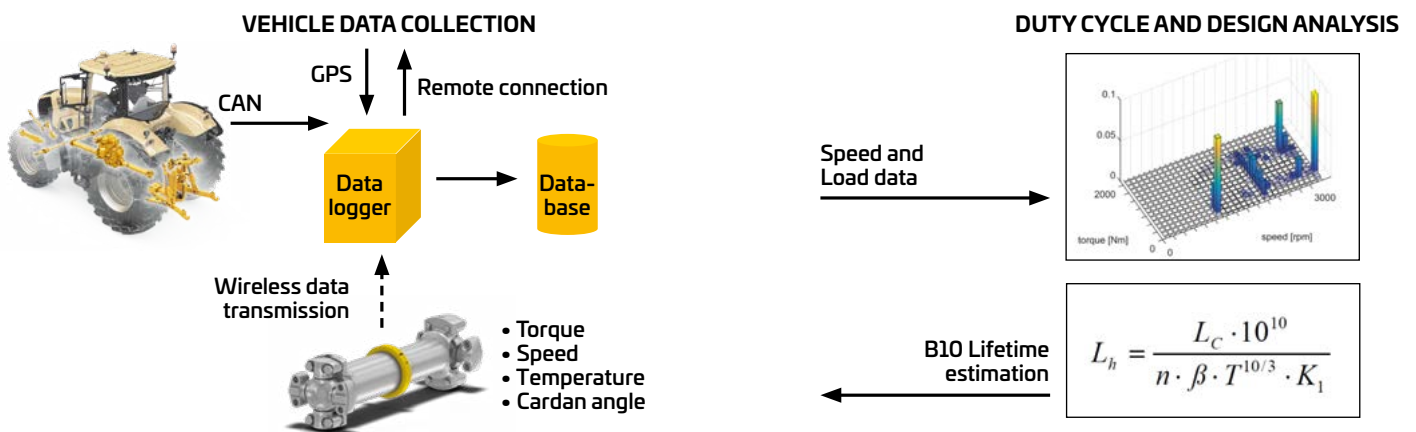


SMART Duty Cycle Analysis



Driveshaft selection done the „SMART“ way!

Every calculation model is only as good as the input. If only there was a clever way to capture real world duty cycles to avoid having shafts under/oversized based on estimations. With Walterscheid Powertrain Group's integrated SMART & Connected Technology, now there is! Through integrating sensor functionality into the driveshaft, we make duty cycle measurement under real conditions accessible to our customers. This service is an important enhancement to our existing capabilities of life estimation; especially in marginal applications.



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

