



# SPIDAN Steering Technology



**SPIDAN**<sup>®</sup>  
Original GKN Parts

*Ideas in Motion* >

# The steering that responds perfectly

The steering forms the most direct connection between road and driver. Although it consists of multiple different technical components, it needs to convey clear and unambiguous steering feedback to the driver in order to be safe. Changing just one single part can destroy that familiar feedback.

Only steering components configured specifically for that type of vehicle paired with precision production techniques ensure that steering feedback remains intact and the vehicle continues to react as expected. Spidan offers a comprehensive range of steering technology and services that fulfils exactly these requirements..

## Manual, hydraulic or electric – stay on track with SPIDAN

Power-steering technology has developed enormously in recent years through the integration of electrical components. Hydraulic systems increasingly feature electric motors to drive pumps. This eases the load on the internal combustion engine and consumes less fuel.



> Hydraulic Power Pump

Purely electrical systems have no hydraulics at all. The electric motor (actuator) delivers drive directly to the steering gear or steering column. These systems are lighter and more compact and, as well as contributing to fuel efficiency, the weight reduction also makes them suitable for installation in small vehicles.

The proportion of electrical steering systems will increase going forward as they are an important prerequisite for autonomous driving. Until then, however, purely hydraulic systems will retain their high share of the market as they still provide excellent steering feedback.

Regardless of the system used, SPIDAN offers the optimum steering technology. For fast and reliable service, SPIDAN also provides workshops with helpful diagnostic checklists and installation instructions. Plus, there are a number of technical training programmes on offer specifically for the inspection of steering systems.

> Hydraulic Power Pump with Electric Motor



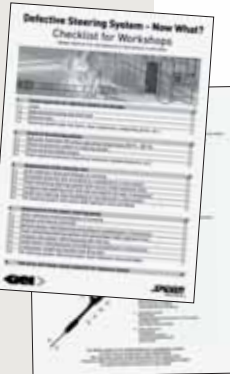
> Electric Steering Column

## Programme overview

- > **Power-steering pumps**  
Sliding vane, tandem, electronically controlled or conventional – they all have a major impact on steering-system performance and reliability. The steering system is assisted by precisely calculated flow rates and corresponding pressures.
- > **Hydraulic steering gear**  
As the classic power-steering system, hydraulic rack-and-pinion steering benefits from an integrated design and excellent reliability. SPIDAN offers complete steering gear sets with all ancillary parts, configured for the respective vehicle.
- > **Electronically controlled steering columns**  
The electric motor (actuator) is mounted on the steering wheel and combined with a classic manual steering system. Control electronics (for the steering only or via the data bus) regulate power assistance. To simplify the repair process, SPIDAN offers complete replacement steering columns.
- > **Steering boots**  
The most common cause of damage to steering systems is leakage. SPIDAN offers a comprehensive range of precision-fit steering boots to the very highest quality standards. As well as natural rubber, the materials used, especially for newer vehicles, also include thermoplastic elastomer (TPE). With no other boot material offering greater resilience, TPE provides the best possible protection.

## Expertise for better service

- > Detailed technical descriptions and instructions in all electronic catalogues such as the TecDoc catalogue and on the GKN homepage
- > Tips on the professional installation of electric power steering
- > Timely and accurate identification of a defect in the steering system is necessary to prevent problems and guarantee driver safety. SPIDAN's detailed checklists provide workshops with a helpful tool for efficient and reliable remote diagnostics.
- > **Highly qualified training programmes**  
The technical training delivered by our qualified experts enables participants to inspect steering systems and to identify and address existing defects quickly and definitively.
- > **Additional information in our workshop brochures:**  
"Flushing Steering Systems" and "Causes of Complete Failure" – download from [www.gkndriveline.com](http://www.gkndriveline.com)



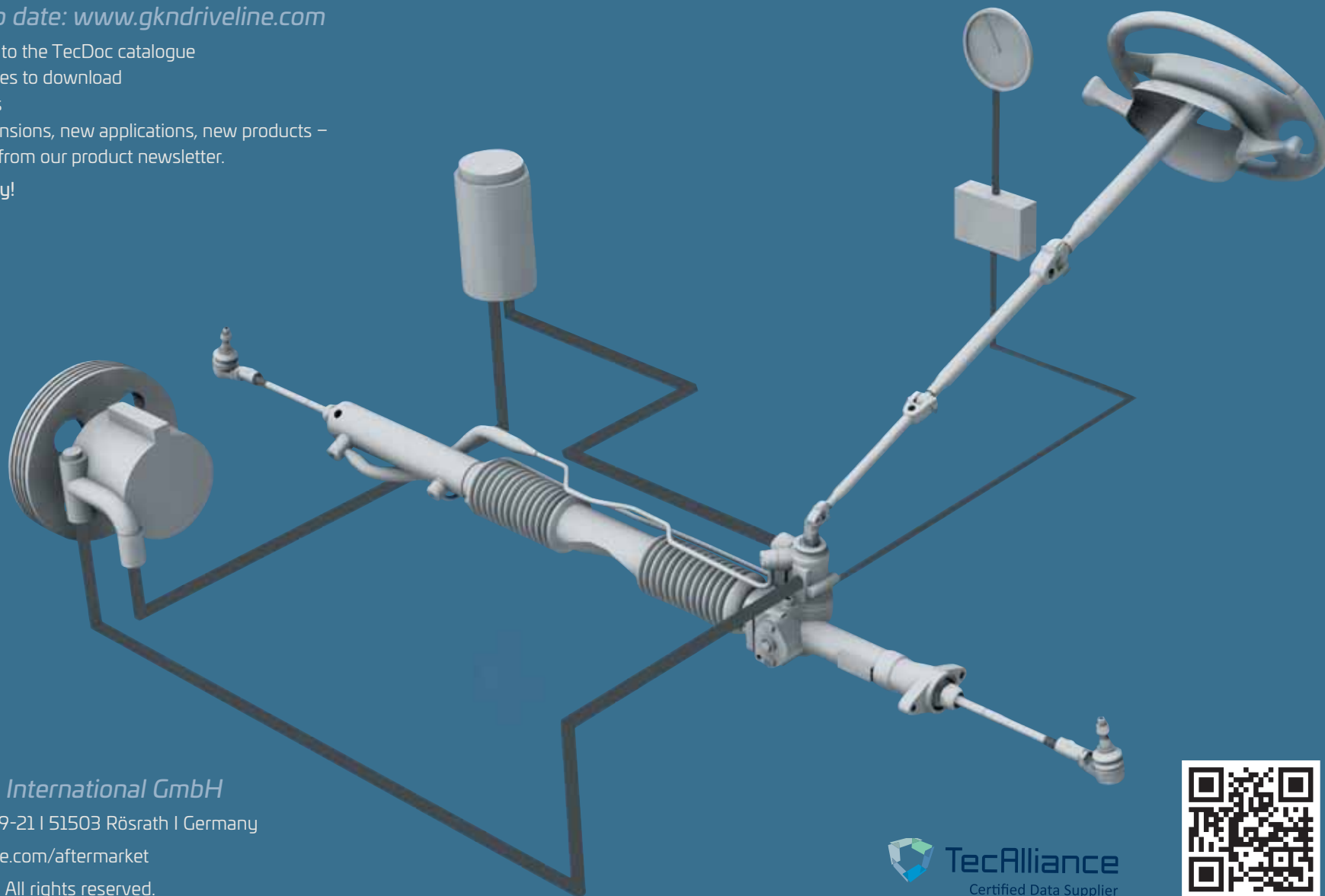




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