

HILKEN

Fahrzeugbau



The new power steering system *PADE* (Pick And Drive Easy)

is so simple and easy for the customer to use, that it is easy to write an instruction manual.

The customer needs only to connect the hydraulic and plug the 3-pin connector for the power supply.
That's all!

PADE learns in the first few seconds of driving forward the parameters of the towing vehicle.

It is irrelevant whether being driven around curves or straight. The measurements are performed by various systems. Sound Velocity sensors measuring the distance to the towing vehicle. There is one sensor on each side at the left and the right. Here, the difference value is determined. But because the towing vehicle in most cases is asymmetric, we need more values for comparison. These values we obtained via wheel sensors, which in tandem vehicles are installed in the first Axis. And an angle sensor that is installed on the steering axle.

By comparing these values PADE detects the steering angle of the tractor/towing vehicle and can be operated after a short training time as full power steering. The system processes the values during operation on an ongoing basis, so that an exact run of the trailer is guaranteed at all times.

After the learning phase the PADE has two different and mutually independent signal sources. PADE is a redundant and fault-tolerant system with an extremely low risk of default.

Contamination of the sound sensors or a failure of individual sensors does not lead to the failure of PADE. But if, despite all measures lead to a failure of PADE, can operate the trailer with the normal self-steering. This ensures in any case that it cannot come to costly failures. Of course in PADE the steering angles are adjusted to the speed.

This means that the higher the speed, the smaller the steering angle. A steering angle against the slope (crab) can be realized without problems. At PADE the user is not servant of technology, by far too great and usually written in a difficult language user manual must read and much worse even understand. Here, the technique serves the user to easily and efficiently.