



# PTO DRIVE SHAFTS FROM WALTERSCHEID

*...for perfect drive.*

# PROFESSIONALS TRUST WALTERSCHEID

Your brand for professional agricultural drivetrain technology



## The Walterscheid brand stands for development and innovation of powertrain systems in agricultural technology.

For more than 100 years, our technologies have set the standard, especially when it comes to PTO drive shafts, overload and overrunning clutches, and modern tractor attachment systems. Producing PTO drive shafts and providing a range of associated services have been core competences of Walterscheid from the beginning.

Leading agricultural technology manufacturers place their trust in Walterscheid's proven products and expertise. Increasingly, our products are being individually developed and produced to meet the actual requirements upon tractors and agricultural machines. This is why all of our PTO drive shafts comply with the DIN EN 12965 standard, for example. Our PTO drive shafts ensure the reliability and – above all – the operational safety of agricultural machines. This includes a long service life with little maintenance required.

With this in mind, we recommend using original spare parts from Walterscheid more than ever. We are represented by specialized dealers throughout Germany, so we're never far away and can respond quickly to service requests.

You can recognise our products by the Walterscheid diamond, which appears not only on our PTO drive shafts but also on all spare parts and components. This logo is an exclusive guarantee of top reliability and Walterscheid quality!



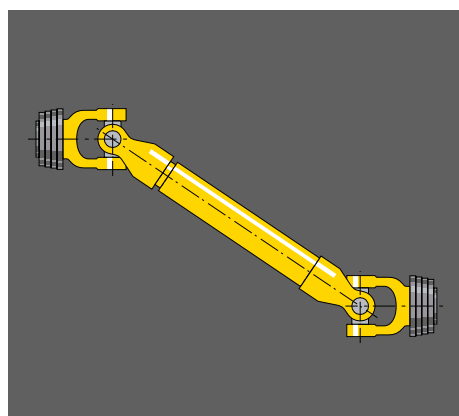
Walterscheid –  
the original

# PTO DRIVE SHAFTS FROM WALTERSCHEID – THE RIGHT ONE FOR EVERYONE

*Just like customized for your own machine! Since we started manufacturing PTO drive shafts, we've always based product development on the latest safety technology expertise and experiences gathered during the use of our products.*

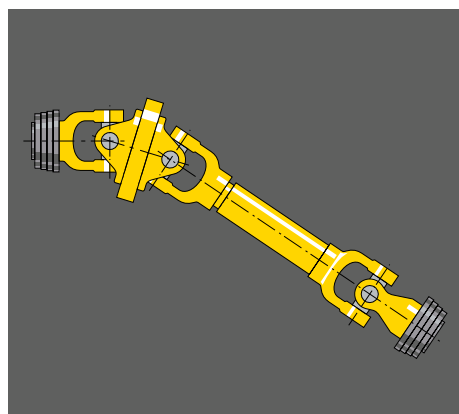
The result is a range of top-quality components that you can use to assemble PTO drive shafts for all sets of requirements – from the smallest possible economical variant to standard assemblies and even really powerful units for continuous use.

We know that each machine has its idiosyncrasies and that every farmer has their preferences. Depending on the machine applications, various designs are available.



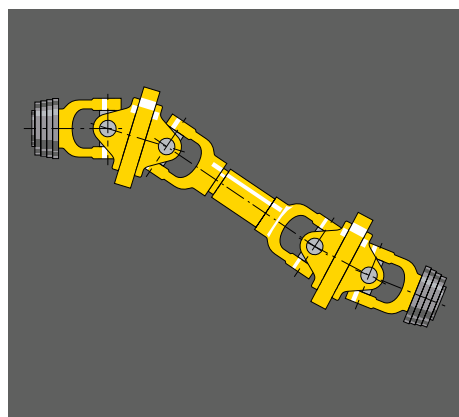
## STANDARD DESIGN (two simple universal joints)

A simple universal joint may be bent up to 25°. The standard design is suitable for PTO driveshafts with parallel axles.



## DESIGN WITH WIDE ANGLE ON ONE SIDE

This design is suitable for axles that are not parallel in cases where the simple universal joint is predominantly in the extended position and the wide-angle joint needs to be bent.



## DESIGN WITH WIDE ANGLE ON TWO SIDES



# A ROBUST DESIGN WITH HIGH RELIABILITY

*The W series is our PTO drive shaft for a range of agricultural applications.*

The W series PTO drive shaft offers tried-and-tested Walterscheid technology and is perfectly designed to suit all application areas. The excellent benefits of this Walterscheid PTO drive shaft is a long service life, ease of use, and great safety properties. For decades, Walterscheid has been a guarantee of the highest quality.

The W series are optimally dimensioned for drivetrain tasks, from simple to complex ones. It impresses users with its robust design and high reliability for daily use. Another advantage: All of the components in the PTO drive shaft W series can be replaced really easily to increase ease of use or if spare parts are needed.

### THE WALTERSCHEID QS LOCK

This is a further development of the familiar quick-disconnect lock. It is available for all sizes. Because the QS yoke can be pre-centred on the PTO shaft with the locking mechanism open, you have both hands free for sliding it on. It engages automatically, with an audible click.



## THE SPECIAL FEATURES OF WALTERSCHEID PTO DRIVE SHAFTS

### PTO DRIVE SHAFTS WITH ST GUARDS

The advantage of profiled guards is that the two halves of the guard are rotationally fixed. As a result, at least one retaining chain on the PTO drive shaft guard (preferably on the tractor side) is no longer needed. The risk of guard defects due to incorrect chain attachment is reduced. In combination with a full guard on the implement side, it is even possible to dispense with both retaining chains.

This is a real plus when it comes to safety, since a defective guard cannot provide adequate protection against the rotating PTO drive shaft.



### INNOVATIVE CLUTCH TECHNOLOGY

The Walterscheid range has the perfect clutch for any application. This ensures the ideal protection of the entire powertrain and your machine.



## PROGRESS FOR PTO DRIVE SHAFTS – THE NEW WALTERSCHEID GUARD CONCEPT

This full implement-side PTO drive shaft guard is based on the proven range with ST/PG guards. It rounds off the implement guard range due to the full guard adaptor that covers all joint angles. All-round protection is present even if the joint is bent up to 90° while the PTO drive shaft is at a standstill. In addition to meeting safety requirements, the implement-side guard protects the PTO drive shaft from dust and dirt. Because the PTO shaft guard is attached directly to the machine, retaining chains are not needed.



### THE NEW WIDE-ANGLE FULL GUARD HAS THE FOLLOWING FEATURES:

- Connection between wide angle guard and bellows via adapter
- Reduction in chain retention elements for SD guard and total elimination of retaining chains for ST and PG guards
- An easy-to-mount, user-friendly solution
- Top protection from the rotating joint

### CONVENIENT LUBRICATION

All cross and bearing kits are fitted with innovative cap bottom lubrication as standard. This facilitates PTO drive shaft lubrication, partly due to improved accessibility. To enable optimum access, a slot is provided in the guard cone. Maintenance couldn't be easier!



### W SERIES WIDE-ANGLE JOINTS

The Walterscheid wide-angle joints can transfer higher powers and enable angle movement of up to 80° for a short period of time. Available in four sizes, the W series covers the entire power range for various requirements during daily use.



### WALTERSCHEID PTO DRIVE SHAFT LOCKS

For users, the lock is the most important detail of the PTO drive shaft, since it must be operated daily when coupling and decoupling. The priorities here are ease of use and top safety. In addition to the proven quick-disconnect lock, Walterscheid offers various other solutions.



# THE POWERFUL PTO DRIVE SHAFT FOR TOP REQUIREMENTS

*Power Drive PTO drive shafts offer extra power and improved handling.*

They are specially designed for machines in continuous use and meet the highest requirements.

### **Maintenance: Once a season is ample!**

When it comes to maintenance, Walterscheid Power Drive PTO drive shafts again offer top performance. Power Drive PTO drive shafts only need to be maintained once a season (every 250 hours depending on the application). These long maintenance intervals are achieved due to a range of technologies:

- The material of the guard bearings only requires minimal lubrication.
- The joints are fitted with special universal joint seals (multi-lip technology) whose shape and material prevent grease from escaping and the penetration of dust.
- The profile pipes have a grease nipple. These pipes are made from specially treated material that reduces axial forces and minimises the wear on the profile pipes. Profile pipe seals repel dirt and avoid grease loss.

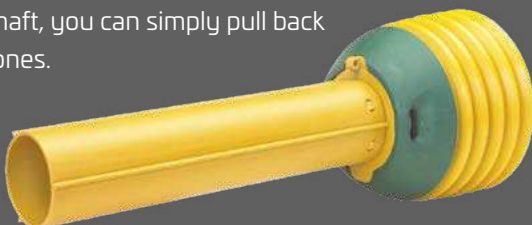


## SPECIAL FEATURES OF WALTERSCHEID'S POWER DRIVE PTO SHAFT

### **PG PTO DRIVE SHAFT GUARDS – FULL GUARDS WITH NO RETAINING CHAIN**

The Power Drive with simple joints can be combined with a full guard.

As a result, the implement-side safety shield and both retaining chains are no longer needed, and the dangerous rotation of the entire guard is prevented. To maintain the PTO drive shaft, you can simply pull back the guard cones.



### **INNOVATION FOR INCREASED SAFETY**

We offer innovative clutch technology for high power requirements. Cam-type cut-out clutch K68/EK68 has an impressive design principle that is based on Walterscheid's many years of experience and proven technology. A new bearing concept has significantly improved running smoothness. The lubricant volume has been increased, and improved sealing has considerably reduced wear on the cams and the risk of contamination and grease loss during maintenance.



## SIMPLIFIED HANDLING

To enable the simple handling of the Power Drive PTO drive shaft, the guard cones can be easily unlocked and pushed back. The resulting space makes coupling and decoupling the PTO drive shafts and maintaining the joints and guard bearings significantly easier.



Profiled, thick-walled guards rotationally fix the two halves of the guards. This means that the retaining chain on the tractor side is no longer necessary. In the case of the full guard version, no retaining chains are required.

## LONG-LIFE CROSS AND BEARING KIT

for doubling the service life

The new cross and bearing kits have a multi-lip seal and cap bottom lubrication. The doubling of the joint service life for standard joints brings with it a significant increase in reliability. Maintenance requirements and wear are also reduced.



## WIDE ANGLE TECHNOLOGY P450

This compact 50° wide-angle joint offers the ideal complement to the well-known and proven 80° and 75° wide-angle joints, which have already been successfully used time repeatedly. The low-maintenance P450 wide-angle joint is ideal for any application with permanent bending angles of up to 50°.



## POWER DRIVE WIDE-ANGLE JOINT P675

This joint was specially developed for demanding applications such as use on self-loading wagons and large balers, for tillage and harvesting machines, and for a tractor with maximum power of 400 HP.





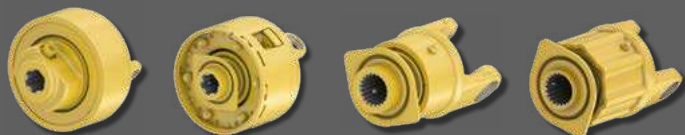
# WALTERSCHEID CLUTCHES

*The perfect protection system for your machine.*

With the clutches on your PTO drive shaft, you protect your agricultural machine from overload and consequently prevent machine downtimes and the repairs.

Problems often occur when you're starting work, before the optimum working speed has been reached. However, your machine can also suffer an overload if you drive too quickly, process too many crops at one time, or if foreign objects block your implement.

With Walterscheid, you can rest assured that you have the perfect PTO drive shaft and clutch for any application and requirements.



**An overview: The most important clutch types for any requirement**

## **Cut-out clutches**

Typical applications are: Forage wagons, manure spreaders, round balers, rotary harrows, corn adapters, feeders on forage harvesters, snow blowers etc.

## **Friction clutches or combined friction/overrun clutches**

These clutches are mainly used on high-pressure balers, blowers, rotary tillers, and rotary mowers.

## **Radial pin clutches**

These clutches are ideal for manure spreaders and forage wagons at the lower end of the power range, rotary rakes/tedders/windrowers, sugar beet/potato harvesters and cutters.



## CLUTCH OVERVIEW

### OUR RANGE OF CLUTCHES

Our range of clutches can cover a wide variety of applications. The different requirements are met by four basic clutch types: torque-maintaining, torque-pulsating, torque-interrupting and unidirectional.

#### Friction clutches

Torque-maintaining



##### Application:

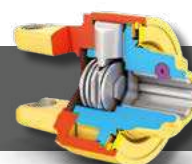
Start-up clutch for accelerating large masses, limiting short-term torque peaks without interrupting work

##### Machine types:

Mowers, rotary tillers, pick-ups, large balers, blowers, forage harvesters

#### Cut-out clutches

Torque-interrupting



##### Application:

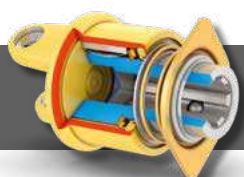
Interruption of force upon overload, automatic re-engagement at a defined speed

##### Machine types:

Large balers, forage wagons, manure spreaders, rotary harrows, feeders on harvesters

#### Overrunning clutches

Unidirectional



##### Application:

Overrunning clutch to protect the drive from rotating masses, no overload protection

##### Machine types:

Mowers, blowers, schredders, balers

#### Shear bolt clutches

Torque-interrupting



##### Application:

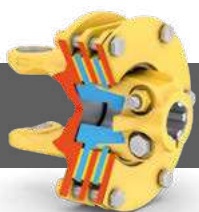
Complete interruption of force, the shear bolt must be replaced each time

##### Machine types:

Slurry pumps, mixers, economy-Balers

#### Friction / overrun clutches

Torque-maintaining, unidirectional



##### Application:

Friction / overrunning clutch to protect the drive from rotating masses

##### Machine types:

Mowers, blowers, schredders, balers

#### Radial pin clutches

Torque-pulsating



##### Application:

Interruption of force upon overload with pulsating torque that can be used for freewheeling the machine

##### Machine types:

Rotary tedders and hay rakes, pick-ups, individual protection in corn headers, protection of conveying elements in cutting units

# NEW PREMIUM SAFETY SHIELD

*For the quick and easy assembly and maintenance of the PTO drive shaft.*

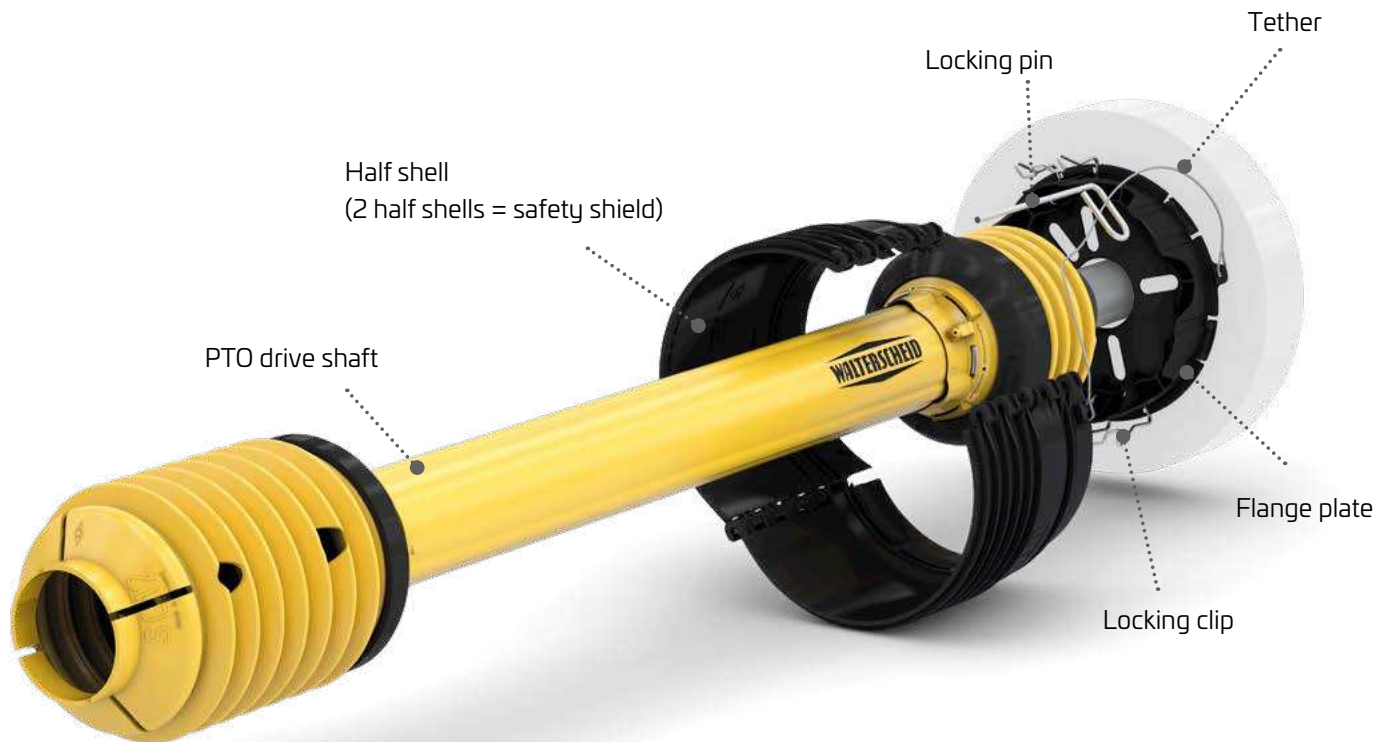
The new PTO drive shaft guard concept also includes the new Walterscheid premium safety shields. These products make the assembly, disassembly and maintenance of PTO drive shafts and clutches significantly easier. The implement-side premium safety shields are made from top-quality materials and can be opened and removed in a few simple steps.

These new safety shields have a range of advantages over existing products: They have a 360-degree interlock and allow the safety shield to be mounted after the PTO drive shaft has been coupled up. Disassembly is also really easy and user-friendly. The shield is simply pushed off the flange plate on the transmission by jemmying the locking clip.

The new premium safety shields have low installation space requirements and a universal hole pattern for practically all applications. They are available in two diameters (220 mm and 250 mm) and three lengths (180 mm, 240 mm, and 275 mm). Existing machines can easily be retrofitted with the new safety shields.

### ► AN OVERVIEW: THE PREMIUM SAFETY SHIELD

- Removable safety shield with two half shells that can be opened
- Safety shield can be mounted **after** the PTO drive shaft has been mounted
- Easy assembly and disassembly
- Optimum accessibility of PTO drive shaft
- Low installation space requirements
- Universal hole pattern for practically all applications
- A robust and long-life product thanks to high-quality materials
- Easy retrofitting of existing machines

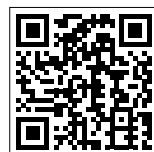


## THE WALTERSCHEID PRODUCT FINDER – THE PERFECT PRODUCT WITH ONE CLICK.

Our online product finder makes the search for the right PTO drive shafts and hitching technology for tractors and attachments easy.

- ▶ Users can use the product configurator to easily identify the correct technology and all required components for their machines. The perfect solutions and accessories for each tractor type can be selected by mouse-click.
- ▶ In the PTO drive shaft area, you'll find an overview of our current PTO drive shafts ranges – from the smallest economical solution for standard applications to powerful combinations for continuous operation and top drive power. In addition, all available individual PTO drive shaft parts and our complete clutch range are listed.
- ▶ Information is provided for the entire product range in our tractor attachment system, including top links, stabilisers, lower link hooks, lift rods, and the corresponding spare parts.

- ▶ The product range is rounded off by the Walterscheid hitching technology, consisting of bolt clutches, ball products, Piton-Fix attachments, towing devices, forced steering systems, and a wide range of hitch blocks.
- ▶ The Walterscheid product finder also has an extensive download portal. Here, you can download catalogues, flyers, legal provisions, operating manuals and technical information.
- ▶ The Walterscheid product finder is constantly updated, so the latest information is always available here.



**THE RELIABLE  
WAY TO THE RIGHT  
PRODUCT!**

[www.walterscheid.com](http://www.walterscheid.com)



## MAKE THE MOST OF OUR EXPERIENCE – A SYMBOL OF RELIABILITY



If you invest in the safety of your powertrain, you're sure to be on the right track. So choose Walterscheid products!

- ▶ PTO drive shafts, clutches, transmissions and their components are designed for long-term use.
- ▶ All wearing parts are easy to replace.
- ▶ You can flexibly upgrade or retrofit your implements with individual components.
- ▶ You'll find the perfect product for any power range.
- ▶ We regularly inform our sales partners about new products and technologies. This means that your dealer can provide detailed information on the right parts for you.
- ▶ Your dealer can mount and repair parts for you, too.
- ▶ Your dealer has fast access to the 24-hour spare parts service, which minimises your downtimes if repairs are required.
- ▶ If time is tight and you want to mount parts yourself, your dealer can have them delivered straight to your door.
- ▶ You can also identify the parts you need yourself in our electronic parts catalogue at [www.walterscheid.com](http://www.walterscheid.com) and then order them from your dealer.

### **DEALER NETWORK: ON STANDBY ALL AROUND THE WORLD**

We see ourselves as a service partner for dealers and farmers. Our logistical and technical support for dealers also benefits users:

**WALTERSCHEID GMBH**

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## WALTERSCHEID INSIDE –

Our drive, hitching and attachment systems increase the efficiency of agricultural machines.

- ▶ THINKING OF THE **FUTURE.**
- ▶ DEVELOPING **IDEAS.**
- ▶ LIVING **TECHNOLOGY.**
- ▶ MASTERING **CHALLENGES.**



Walterscheid –  
the original