

**MONTAGE- UND BETRIEBSANLEITUNG  
INSTALLATION AND OPERATING INSTRUCTIONS  
INSTRUCTIONS DE MONTAGE ET D'UTILISATION**

16.12.2021

ZUGZAPFEN-SET (PITON-SET)

PITON-TYPE KIT

KIT DE PITON-FIX

**WICHTIGE HINWEISE:**

siehe separates Dokument BA\_TASC\_400002, [www.walterscheid.com/downloads/](http://www.walterscheid.com/downloads/)

**IMPORTANT NOTES:**

see separate document BA\_TASC\_400002, [www.walterscheid.com/downloads/](http://www.walterscheid.com/downloads/)

**NOTES IMPORTANTES:**

voir document séparé BA\_TASC\_400002, [www.walterscheid.com/downloads/](http://www.walterscheid.com/downloads/)

## PITON-TYPE KIT

The piton-type kit consists of the piton, the tilt or swivel hook, the bearing plates or retainer bearings and the associated bolts.

The piton-kit can be installed in a wide variety of supporting devices such as height-adjustable sliding plates, drawbars or hitch brackets. See also the assembly and operating instructions for the support equipment and the examples in Figure 1.

### OPERATING RANGE:

For use on agricultural or forestry vehicles, self-propelled work machines or trailers.

### CHARACTERISTIC VALUES:

#### TILTING HOOK KIT:

(see figure 2 and appendix 1)

- > adm. D-Value: 75 kN
- > adm. vertical load: 3000 daN (kg)

#### TURNABLE RETAINER KIT:

(see figure 3 and appendix 2)

- > adm. D-Value: 91,6 kN
- > adm. vertical load: 3000 daN (kg)

### TYPE APPROVAL:



#### IMPORTANT:

The supporting device must be sufficiently dimensioned to transfer the permitted characteristic values and be suitable for the installation of the piton kit. The piton kit must be type-approved together with the supporting device or approved individually (within the scope of the StVZO).



#### IMPORTANT:

The speed limits and characteristic values of the supporting device must be observed. The lower value applies in each case.



#### NOTE:

If the valid national approval regulations of the respective country of use require additional official approvals for using these parameters, such approvals must be applied for. For use above the PTO, attention should be paid to the vehicle manufacturer's data regarding vertical loads.

### 1. DESCRIPTION:

The piton-type coupling dimensions and field of application complying with ISO 6489-4, VO (EU) 2015/208 and regulation UN ECE R147, class h.

In its normal state, the device is in coupled and locked position.

### TRAINER RINGS:

Only for connection with trainer rings (drawbar eye) according to ISO 5692-1 or UN ECE R147, class d50-1.

**IMPORTANT:**

To avoid injury, protective gloves, safety glasses and safety shoes must be worn during all dismantling/ assembly actions described in this chapter.

**Environment:**

Lubricants can enter the environment. Environmental pollution: Collect, store and correctly dispose of lubricants in suitable containers.

**2. INSTALLATION:**

(see figure 1 and 2)

**NOTE:**

The pertinent regulations (e.g. Accident Prevention Regulations for Vehicles) and the attachment guidelines of the vehicle manufacturers must be observed when installing the piton-type kit!

The attachment of the piton-type kit to the vehicle must be carried out in accordance with the requirements of regulation (EU) 2015/208, Appendix 34.

**NOTE:**

Official national regulations must be observed. For example: in Germany the obligations §13 FZV regarding the data in the car license concerning the permissible trailer weight as well as the permissible vertical load must be considered.

**ATTACHMENT OF THE PITON-TYPE KIT:**

(see appendix 1 and 2)

The piton-type kit can be installed by means of a welded connection directly on the supporting devices. The welded connection is to be made in accordance with the valid regulations and examined during acceptance testing. The responsibility for the installation lies exclusively with the manufacturer of the components to which the piton set is welded.

When producing the welded connection, note that the supporting devices must be preheated to a temperature of 250 °C before the start of welding. The decision about this is up to the respective welding specialist. The straight welds and fillets must be welded in a single pass in order to avoid notch effects. The weld seam quality is subject to the requirements of Quality Group B to DIN EN 25817.

**IMPORTANT:**

The installation of the piton-type kit must be carried out by a specialist workshop, unless the vehicle owner himself has the appropriate specialists and the necessary technical equipment.

**3. OPERATION:****WARNING:**

The pertinent safety regulations must be observed when coupling and uncoupling.

No one may stand between the vehicles. The coupling may only be operated in locked condition.

When coupling and uncoupling, the drawbar must be as horizontal as possible relative to the coupling.

### 3.1 TILTING HOOK KIT

(see Figure 2)

#### 3.1.1 COUPLING:

- > Remove the linch pin (4) of the retainer pin (3) and pull out the pin.
- > Turn the tilting hook (2) in drive direction.
- > Move the trailer ring over the piton (1).
- > Lower the trailer ring / drawbar by means of the drawbar support or a similar device until it covers the piton.
- > Turn the tilting hook (2) back, so that it secures the trailer ring.
- > Secure with the retainer pin (3) and the linch pin (4). Check the correct fit of the linch pin.

#### 3.1.2 UNCOUPLING:

- > Use supporting jacks or similar to stop the trailer rolling away.
- > Remove the linch pin (3) of the retainer pin (2) and pull out the pin.
- > Turn the tilting hook (1) in drive direction.
- > Move up the trailer ring / drawbar by means of the drawbar support or a similar device
- > Move the tractor forwards.
- > Turn the tilting hook (1) back and secure with the retainer pin (2) and the linch pin (3).

### 3.2 TURNABLE RETAINER KIT

(see Figure 3)

#### 3.2.1 COUPLING:

- > Remove the linch pin (4) of the retainer pin (3) and pull out the pin. As an alternative to the linch pin, a spring cotter pin can be used.
- > Pivot the retainer (2) through 90° into the lateral position.
- > Move the drawbar over the piton (1).
- > Lower the drawbar by means of the drawbar support or a similar device.
- > Pivot the retainer (2) back into the direction of travel so that it is above the trailer ring.
- > Secure with the retainer pin (3) and the linch pin / spring cotter pin (3). Check the correct fit of the linch pin.

#### 3.2.2 UNCOUPLING:

- > Use supporting jacks or similar to stop the trailer rolling away.
- > Remove the linch pin / spring cotter pin (4) of the retainer pin (3) and pull out the retainer pin.
- > Pivot the retainer (2) through 90° into the lateral position.
- > Raise the drawbar by means of the drawbar support.
- > Move the tractor forwards.
- > Pivot the retainer (2) into the direction of travel and secure it with the retainer pin (5) and the linch pin / spring cotter pin (6). Check the correct fit of the linch pin.

### 4. MAINTENANCE:

(see Figure 2 and 3)

#### 4.1 CARE:

- > The retainer (2) should be pulled out completely at regular intervals, depending on the frequency of use, and any dirt in the bearing has to be eliminated. All retainer pins must be removed beforehand for this purpose. Subsequently re-grease the bearing.
- > For lubrication use a water-resistant, multi-purpose grease (Grease type: lithium saponified, consistency class: NL-GI2).

#### 4.2 CHECKS:

- > Piton (1):  
The min. diameter at the piton is 41.5 mm, measured 15 mm above the piton saddle plate. If it is reached, the piton must be exchanged. A separately available Walterscheid test gauge can be used to comfortably control the wear limit.
- > Height play:  
If the height play between piton and retainer exceeds 10 mm in closed state, the appropriate parts such as retainer or piton-type coupling must be replaced.



#### IMPORTANT:

Use only original Walterscheid spares when replacing parts. If the vehicle owner does not have the appropriate skilled workers and the necessary technical equipment, the replacement may only be performed by a specialist workshop.



#### WARNING:

##### SAFETY NOTES:

- > The user is obliged to always operate the coupling in perfect condition and to forbid its use by unauthorised persons.
- > The loads indicated on the type plate may not be exceeded.
- > Unauthorised conversion or modification of the coupling is not permitted.

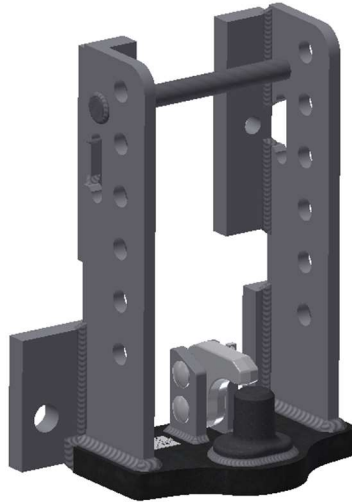
Bild 1 – Beispiele von Baugruppen mit Zugzapfen

Figure 1 – Examples of assemblies with piton

Figure 1 – Exemples de montages avec piton



Anhängebock mit Zugzapfen  
Towing frame with piton  
support d'attelage avec piton



Anhängebock mit Zugzapfen  
Towing frame with piton  
support d'attelage avec piton

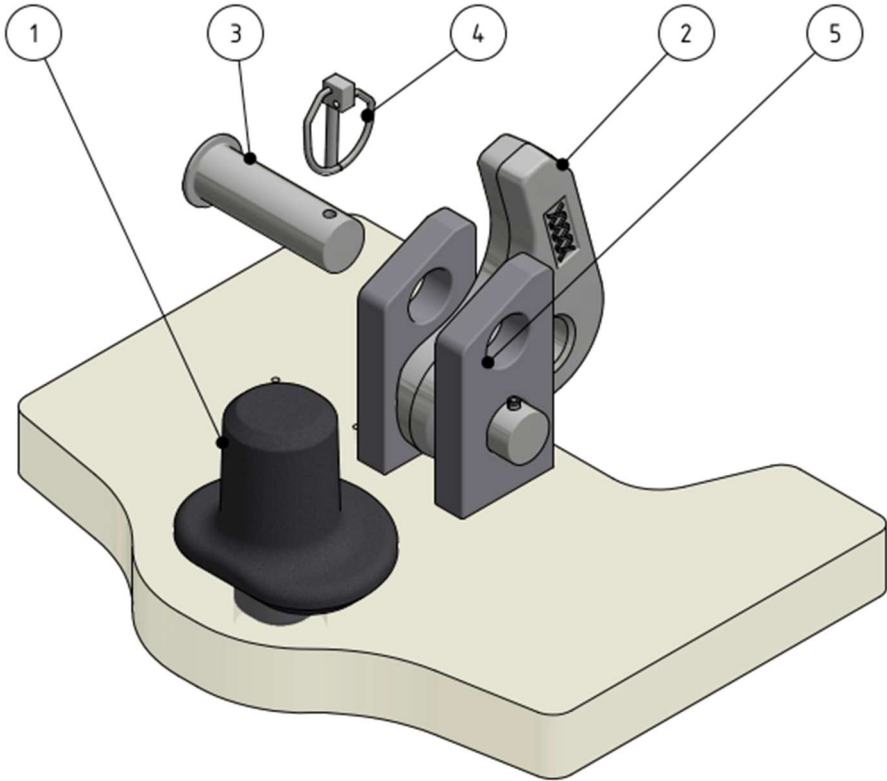


höhenverstellbarer Pitonbock  
height-adjustable piton frame  
Support du piton réglable en hauteur



Pitonbalken  
Piton drawbar  
Barre de piton

Bild 2  
Figure 2



Piton-Fix mit Kipphaken  
Piton-Fix with tilting hook  
Piton-Fix avec dispositif de retenue

Legende:

- 1 Zugzapfen
- 2 Niederhalter
- 3 Niederhalterbolzen
- 4 Klappestecker
- 5 Lagerplatte

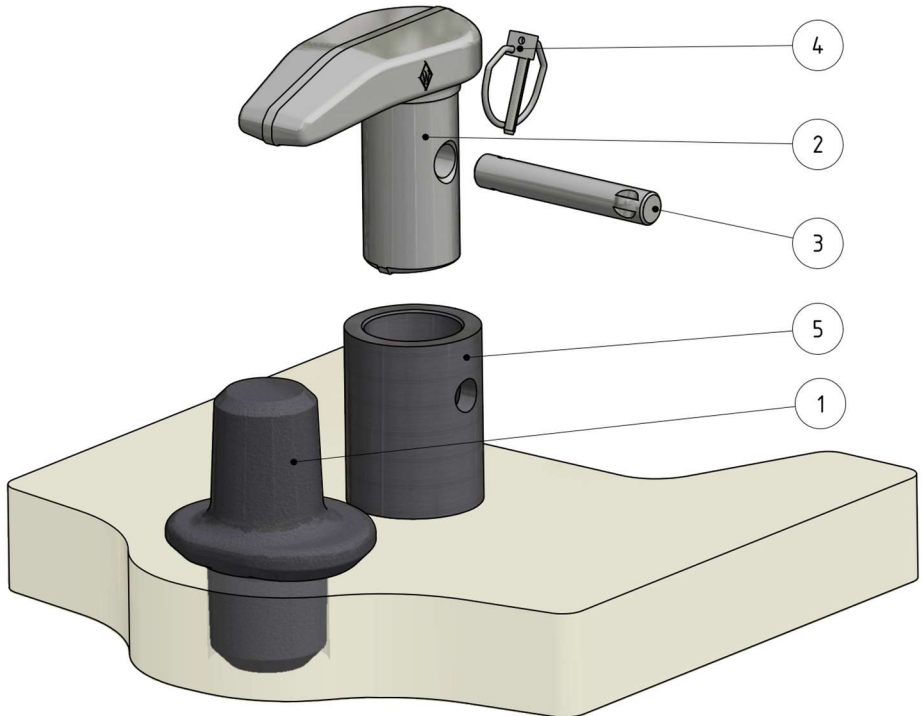
Legend:

- 1.. piton
- 2.. tilting hook
- 3.. locking pin
- 4.. linch pin
- 5.. bearing plate

Légende:

- 1.. piton
- 2.. dispositif de retenue
- 3.. goupille de retenue
- 4.. goupille
- 5.. logement

Bild 3  
Figure 3



Piton-Fix mit drehbarem Niederhalter  
Piton-Fix with turnable retainer  
Piton-Fix avec dispositif de retenue pivot

Legende:

- 1 Zugzapfen
- 2 Niederhalter
- 3 Niederhalterbolzen
- 4 Klapstecker
- 5 Niederhalter-Lagerung

Legend:

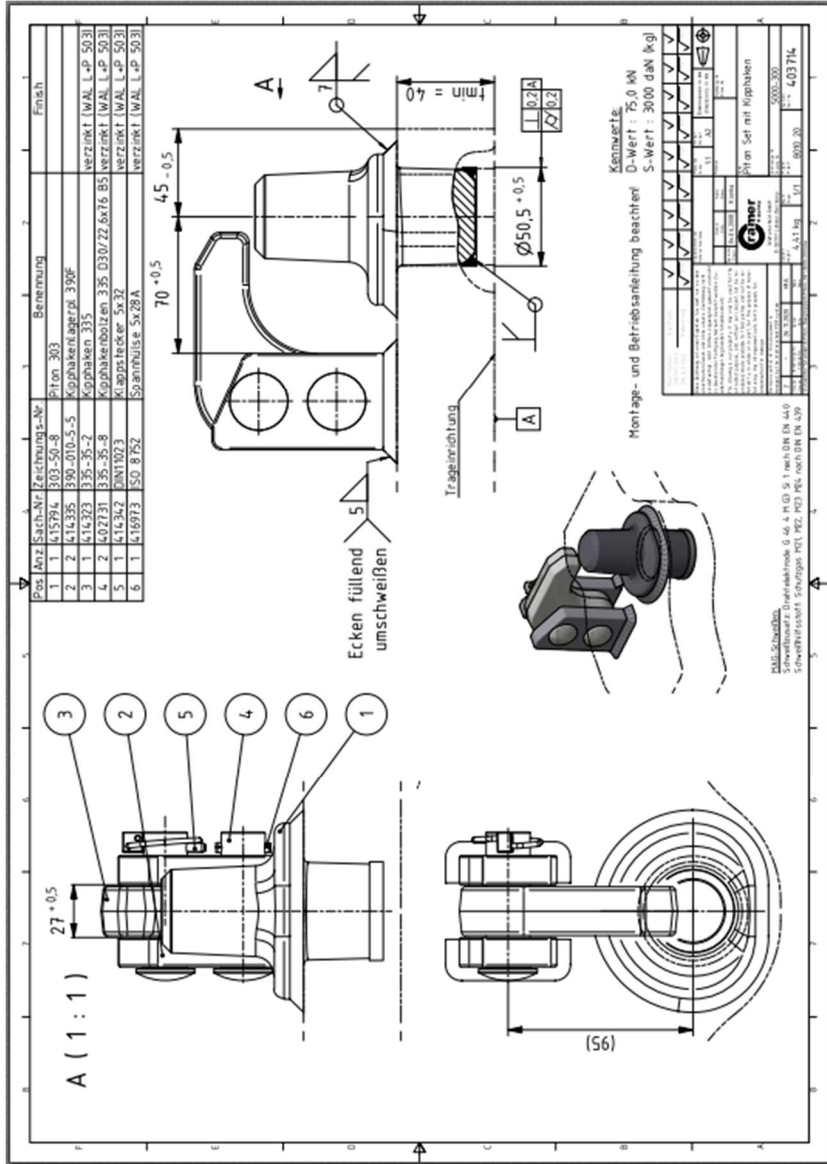
- 1.. piton
- 2.. turnable retainer
- 3.. locking pin
- 4.. linch pin
- 5.. retainer bearing

Légende:

- 1.. piton
- 2.. dispositif de retenue
- 3.. goupille de retenue
- 4.. goupille
- 5.. logement de retenue



Anlage 1: Zeichnung 5000-300  
 Appendix 1: Drawing 5000-300  
 Annexe 1: Dessin 5000-300



Anlage 2: Zeichnung 5000-400  
 Appendix 2: Drawing 5000-400  
 Annexe 2: Dessin 5000-400

