

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

30.03.2022

SCHNELLHÖHENVERSTELLBARE ANHÄNGEBÖCKE

QUICK HEIGHT-ADJUST TOWING FRAMES

SUPPORT D'ATTELAGE RÉGLABLE EN HAUTEUR RA- PIDE

WICHTIGE HINWEISE:

siehe Anhang oder separates Dokument BA_TASC_400002, www.walterscheid.com/downloads/

IMPORTATANT NOTES:

see attachment or separate document BA_TASC_400002, www.walterscheid.com/downloads/

NOTES IMPORTANTES:

voir annexe ou document séparé BA_TASC_400002, www.walterscheid.com/downloads/

QUICK HEIGHT-ADJUST TOWING FRAMES

1. DESIGNATIONS AND TECHNICAL DATA:

APPLICATION:

For use on agricultural or forestry vehicles.

TYPE APPROVALS AND CHARACTERISTIC VALUES:

see typeplate, approval document, product data sheet or test report for single type approval.



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.

CONNECTING DEVICES:

If available, towing frames can be operated with permanently installed connecting devices such as a towing pin (Piton-Fix) or a coupling ball 80.

Furthermore, towing frames are to be operated with the following connecting devices, see product data sheet of the respective towing frame:

- > an automatic Walterscheid clevis-type coupling with slider (e.g. type IN2000 or IN2000X).
- > a non-automatic Walterscheid clevis-type coupling with slider (e.g. type IN5410 or KU5400).
- > a Walterscheid piton coupling (e. g. type PB5300 or PB5300K).
- > a Walterscheid ball 80 coupling (e. g. type KB8300 or KB8300K).
- > a Walterscheid ball 80 coupling type with slider KI8300.
- > a suitable Walterscheid piton-type drawbar type PBa, if there is a support in the frame included.
- > a suitable Walterscheid ball 80 drawbar type KBa, if there is a support in the frame included.
- > a suitable drawbar, if there is a support in the frame included.



IMPORTANT:

When operating with one of the above connection devices, the speed limits and the characteristic values must be observed. The lower value is decisive in each case



IMPORTANT:

When using other connecting devices, the effective support lengths must be observed. They must be less than or equal to the max. support lengths specified for the towing frame.

VERSIONS:

(see fig. 3-6)

Towing frames are available in different versions. With Walterscheid the following identification letters of the support type are used in the respective designation:

- > L: „long“ frame, only long guide rail.
- > F: „French“ frame, with firmly mounted Piton-Fix and guide rail.
- > K: „short“ frame, short guide rail, for combination with Pick-Up Hitches
- > KK: „ball-type coupling“, with fixed ball-type coupling and guide rail.

Please note that these four versions do not generally exist for each type of towing frame!



IMPORTANT:

For use of connecting devices above the PTO (top attachment), pay attention to the vertical load defined by the vehicle manufacturer, which is usually limited to 2 tons. Only below PTO (bottom attachment) higher vertical loads are possible, for details see type approval or special expertise.

TRAILER RINGS:

The piton (piton-fix) is suitable for connection to trailer rings according to ISO 5692 and ISO 20019 (limited, see operating instructions of trailer ring).

The ball 80 is suitable for connection with ball-type trailer shanks 80 according to ISO 24347.

FORCED STEERING DEVICES:

“KK” towing frames are suitable for forced steering devices type ZWL 50 or ZWL 25/30. Attention must be paid to the steering force of the trailer. The steering devices can be mounted on either one side or both sides of the towing frame by means of two M20-bolts (see figure on the right). An additional bracket may be required. The tightening torque is 660 Nm.



Type	Connecting element	Steering force	Connecting part
ZWL 50	ball 50 mm	20 kN	Calotte 50
ZWL 25/30	pin 25 / 30 mm	40 kN	Spherical plain bearing ISO 12240 form G

See also attachment or separate document BA_TASC_400013, www.walterscheid.com/downloads



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 AND OPERATION IN CONNECTION WITH GUIDE RAILS:



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.



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.

TOWING FRAME OPERATING WITH A CONNECTING DEVICE IN THE GUIDE RAIL:

See attachment or separate document BA_TASC_400027, www.walterscheid.com/downloads.

- > Push suitable slider with connecting device from above into the slots of the guide rails of the towing frame.

- > The height of the connecting device can be adjusted by engaging the slider in the corresponding holes in the guide rails (in this context, see also the operating instructions for the connecting device).

3. INSTALLATION AND OPERATION ON THE FRAME:

ATTACHMENT OF THE TOWING FRAME:

The towing frames are fastened to the tractor gearbox housing by means of screws quality 10.9. Normally the bolts are not included in the scope of supply. Therefore the specifications of the vehicle manufacturers are to be preferred for attachment.

If there are no specifications see separate document BA_TASC_400038, www.walterscheid.com/downloads/

The risk of the slider falling through is prevented by an ISO 4017 - M12 bolt which is screwed into the left-hand guide rail of the towing frame and serves as a stop for the inner slider. Alternatively, other fall-safe devices can be used. If there is no risk of falling through, the appropriate safety device can be left out.

Only the PTO guard (rotating or sliding) can be operated on the towing frame. To adjust the height of the trailer coupling, it may be necessary to move the PTO guard out of the area of the guide rail. The PTO guard can be dispensed on towing frames for vehicles without a PTO shaft.



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.



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 towing frame!

The attachment of the coupling to the vehicle must be carried out in accordance with the requirements of regulation (EU) 2015/208, Appendix 34. If the vehicle owner does not have the appropriate skilled workers and the necessary technical equipment, the attachment may only be performed by a specialist workshop.

3.1 PITON-FIX

(see fig. 1)

The retainer can be implemented alternatively as tilting or swiveling hook. The piton-fix may only be operated with the retainer closed and secured.

The operation with swiveling hooks corresponds to point 3.2.

3.1.1 COUPLING WITH TILTING HOOK:

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

- > Turn the tilting hook (1) back, so that it secures the trailer ring.
- > Secure with the retainer pin (2) and the linch pin (3). Check the correct fit of the linch pin.

3.1.2 UNCOUPLING WITH TILTING HOOK:

- > 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).

3.1.3 COUPLING WITH SWIVELING HOOK:

See attachment or separate document BA_TASC_400031, www.walterscheid.com/downloads

3.2 BALL-TYPE COUPLING

(see fig. 2)

See attachment or separate document BA_TASC_400028, www.walterscheid.com/downloads

4. MAINTENANCE:**CARE:**

- > Any dirt and corrosion must always be cleaned off the towing frame to guarantee correct operation. All moving parts of the towing frame, the guide rails and also the coupling ball, must be lubricated regularly (depending on the length of use) and checked for ease of movement.
- > The retainer of piton-fix and ball 80 should be pulled out completely at regular intervals, dependent on the schedule density, and any dirt in the bearing has to be eliminated. Both retainer pins must be removed beforehand for this purpose. Subsequently re-grease the bearing.
- > Ball coupling: If a lubrication fitting is provided on the ball-type trailer shank, the ball can be fed with grease via the central lubrication.
- > If possible, avoid cleaning with a high pressure cleaner. If this is unavoidable, re-grease the towing frame soon.
- > For lubrication, remove the old grease and lubricate the towing frame with fresh grease. The towing frame must be lubricated with water-resistant, multi-purpose grease (Grease type: lithium saponified, consistency class: NL-GI2).

WEAR LIMITS:

Designation:	Nominal dimension:	Wear limit dimension:	Gauge:
Guide rail width	30 mm	32 mm	X
Guide rail width	32 mm	34 mm	X
Guide spacing width	294 mm	297 mm	
Guide spacing width	310 mm	313 mm	
Guide spacing width	323 mm	326 mm	
Guide spacing width	330 mm	333 mm	
Guide spacing width	336 mm	339 mm	

Guide spacing width	390 mm	393 mm	
Piton-type coupling	44,5 mm	41,5 mm	X
Ball-type coupling 80	80 mm	78,5 mm	X

(see also VdTÜV-Merkblatt 712).

If these wear limits are reached, either the towing frame or the piton or the ball must be replaced. The piton-fix or the ball 80 may only be replaced by the licence holder or a specialist workshop authorised by the licence holder.

Separately available Walterscheid test gauges can be used to comfortably control some of the wear limits.

If the vertical play of the coupled trailer shank exceeds 5 mm, the appropriate part such as the retainer, the swiveling or tilting hook or the coupling unit itself must be replaced. Replacing the adjustable retainer always also requires the spring of the set screw to be changed.

REPLACING THE BALL:

The ball can be replaced twice at most. The replacement of the ball 80 may only be carried out by authorised and certified specialist workshops. For more information on ball replacement, visit www.walterscheid.com.



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:

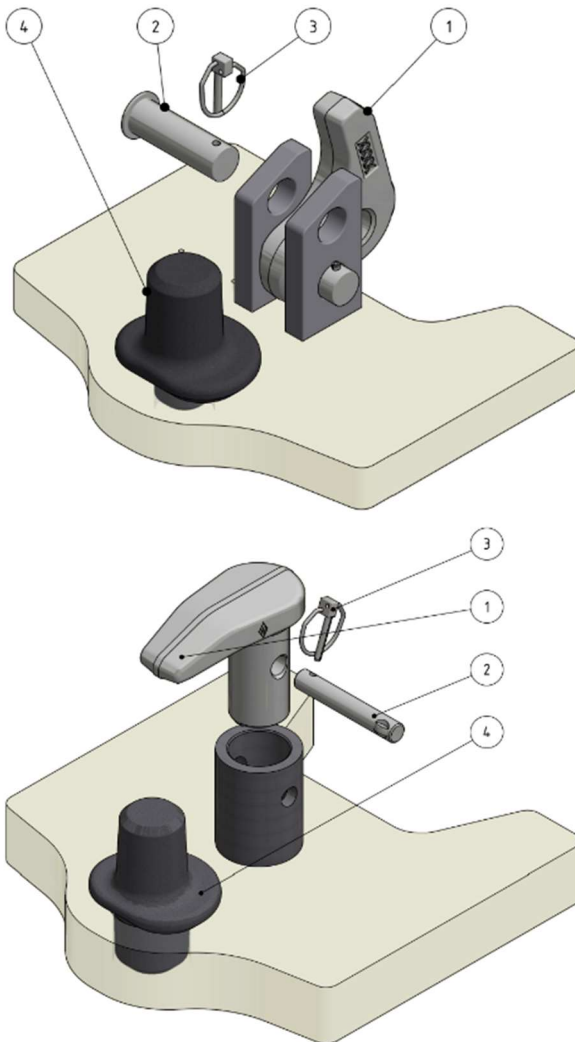
SAFETY NOTES:

- > 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.

5. CALCULATION OF CHARACTERISTIC VALUES FOR CORRECT OPERATION OF THE TOWING FRAME IN COMBINATION WITH A COUPLING ON AGRICULTURAL AND FORESTRY VEHICLES

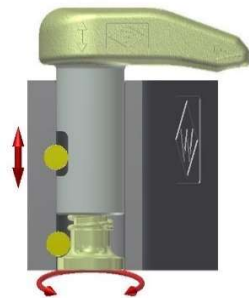
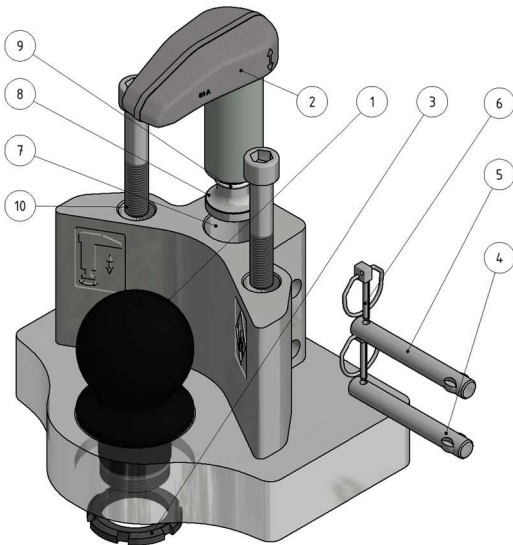
See attachment or separate document BA_TASC_400029, www.walterscheid.com/downloads

BILD 1
FIGURE 1



Kipp- oder Schwenkhaken für Piton-Fix
Tilting or swiveling hook for Piton-Fix
Crochet inclinable ou pivotant pour Piton-Fix

BILD 2
FIGURE 2



Einstellbarer Niederhalter für Kugelkupplung
Adjustable retainer for ball-type coupling
Maintien réglable pour attelage à boule

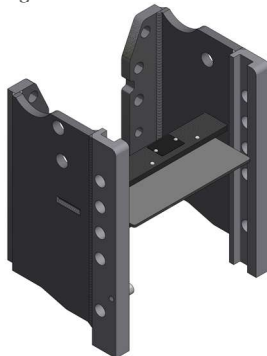
BEISPIELE FÜR ANHÄNGEBÖCKE
EXAMPLES OF TOWING FRAMES
EXEMPLES DE SUPPORT D'ATTELAGE

Bild 3
Figure 3



Anhängebock Typ 308WL
Towing frame type 308WL
Support d'attelage type 308WL

Bild 4
Figure 4



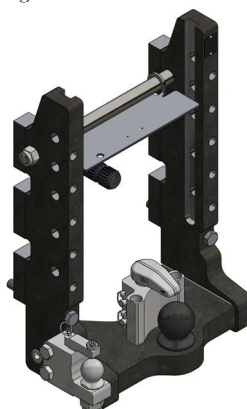
Anhängebock Typ 392K
Towing frame type 392K
Support d'attelage type 392K

Bild 5
Figure 5



Anhängebock Typ 303NF incl. Zugpendel-Abstützung und ZP-Lagerung
Towing frame type 303NF incl. drawbar support and drawbar pivot
Support d'attelage type 303NF incl. support de barre

Bild 6
Figure 6



Anhängebock Typ 342XWKK incl. montierter Zwangslenkung
Towing frame type 342XWKK incl. mounted forced steering device
Support d'attelage type 342XWKK incl. direction forcée assemble