

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

25.11.2021

**AUTOMATISCHE ANHÄNGEKUPPLUNG MIT INNENTEIL
IN9400/8XX**

**AUTOMATIC TRAILER COUPLING WITH SLIDER
IN9400/8XX**

**ATTELAGE DE REMORQUE AUTOMATIQUE AVEC PAR-
TIE INTÉRIEURE IN9400/8XX**

TYPEN/TYPES:

IN9400/894

IN9400/893

IN9400/892

IN9400/891

IN9400/879

IN9400/876

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IN9400/866

WICHTIGE HINWEISE:

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

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IMPORTATANT NOTES:

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

NOTES IMPORTANTES:

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

AUTOMATIC TRAILER COUPLING WITH SLIDER TYPES IN9400/8XX

DESCRIPTION:

The coupling is an automatic trailer coupling with height-adjustable slider, its clevis dimensions and field of application complying with DIN 11028 as well RREG 2009/144/EC, VO (EU) 2015/208 and regulation UN ECE R147, class c40. The clevis dimensions and field of application of series 9400 complies with DIN 11029.

Its design incorporates the lever trigger system, i.e. the coupling procedure is triggered by moving a trailer ring into the clevis and pressing back the trigger lever. In its normal state, the coupling is in closed and locked position.

The automatic trailer coupling can be pivoted through 360°, the torque required for this purpose being 100 - 150 Nm.

A remote control can be used, see separate document BA_TASC_400039, www.walterscheid.com/downloads/.

OPERATING RANGE:

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

TYPE APPROVAL AND CHARACTERISTIC VALUES:

Versions, admissible D value and a static vertical load at the coupling point see type plate, approval document or test report for single type approval.

TRAILER RINGS:

Only for connection to trailer rings according to ISO 5692-1, ISO 8755 und ISO 5692-2. The series 9400 is only for connection with trailer rings according to ISO 8755 (DIN 74054).



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.

1. INSTALLATION OF COUPLING TO THE TOWING FRAME:

(See Figure 1)



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 coupling!

The attachment of the coupling 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.

The slider (7) with the screwed-on side parts, the locking bolts (8) with the compression springs, the locking piece (10) and the locking bracket (9) is pushed in from above between the stepped plates of the towing frame. To do this, the locking bracket (9) must be pulled up from its locking position as far as the stop of the clamping sleeves on the locking piece (10) and then tilted up to the stop on the slider in the direction of the trailer coupling. Then the two locking bolts (8) slide along the front side of the stepped plates of the frame and snap into the respective locking point with the help of the compression springs. Then the locking bracket (9) must be manually pushed back into the locking position (as shown) in order to secure the quick height adjustment. The locking spring (11) prevents unintentional unlocking of the locking device and, due to its position, also serves as a visual control for proper locking (must be engaged under the locking piece).

2. OPERATION:

(see Figure 1 and 2)



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. For a 38 mm pin, the maximum possible inclination of the drawbar in the axial direction when coupling or uncoupling is 10°. A 32 mm pin can be coupled or uncoupled at a maximum possible inclination of 20°.

2.1 UNCOUPLING AND OPENING THE COUPLING:

Use supporting jacks or similar to stop the trailer rolling away. Push up the hand lever (1) until it engages. This releases the locked position and presses outwards the locking/safety pin (2) located on the side, as well as pushing up the coupling pin (5) and locking it in the upper position. The lateral locking pin now protrude noticeably, the coupling connection is released, and the coupling disengaged.

Readiness for coupling is achieved by moving the trailer ring completely out of the clevis.



CAUTION:

Never uncouple if the trailer is under tension or pressure. Forcing the handle may damage the mechanism.

2.2 OPENING THE COUPLING AND AUTOMATIC COUPLING:

Open the coupling as described under 2.1. The hand lever is in its top position, the coupling is ready for connecting, and the safety pin project laterally from the housing. If a trailer ring is now moved into the coupling, the trailer ring presses against the trigger in the clevis and the automatic coupling procedure is triggered, i.e. the coupling pin is instantaneously forced down through the trailer ring and into the seat of the saddle sleeve. The safety pin lies above the coupling pin and secure it, as indicated by the safety pin retracting completely into the housing.



WARNING:

Correct locking of the coupling is only ensured if the laterally projecting safety pin (2) disappears completely in the housing of the coupling mechanism. Only then has the coupling pin moved completely into the saddle sleeve and is a secure connection guaranteed. This must be checked after every coupling procedure.

**CAUTION:**

The trailer ring of the drawbar must always hit the cone of the clevis when backing-up the tractor. Otherwise, the clevis, the trailer ring and the coupling mechanism may be damaged.

2.3 HEIGHT ADJUSTMENT (SEE ALSO INSTALLATION):

The height adjustment of the coupling in the towing frame is carried out in the same way as the assembly of the coupling in the towing frame, see point 1.

3. MAINTENANCE:

(see Figure 1)

3.1 CARE:**IMPORTANT:**

The care instructions must be followed to prevent damage to the coupling.

- > Any dirt and corrosion must always be cleaned off the coupling in order to guarantee correct operation. All moving parts of the coupling must be lubricated regularly (depending on the length of use) and checked for easy movement.
- > Before putting into service and following prolonged use, lubricate the coupling pin (5), the saddle sleeve (3) and the trailer ring with high-viscosity, water-resistant grease.
- > The grease reservoir of the coupling mechanism is filled at the factory, meaning that there is no need for constant re-greasing. Too much grease in the coupling mechanism can impair the function of the coupling, particularly at low ambient temperatures.
- > If possible, avoid cleaning with a pressure washer. If this is unavoidable, re-grease the coupling.
- > In the event of repairs (e.g. replacement of the coupling pin), remove the old grease and lubricate the coupling mechanism with fresh grease. The coupling mechanism must be lubricated with water-resistant, multi-purpose grease (Grease type: lithium saponified, consistency class: NL-GI2).

3.2 CHECKS:**IMPORTANT:**

The checks must be carried out at the appropriate intervals to prevent damage to the coupling.

1. Clevis bearing (6):
The maximum permissible wear in the pivot is 2 mm. The coupling must be replaced if the axial play is greater. The adjusting bolt located below the bearing is used to set the maximum torque. If there is no movement when the locking torque (100 - 150 Nm) is exceeded, the coupling must be repaired. This must be checked at regular intervals.
2. Coupling pin (5):
Clean the coupling pin and measure its diameter in the middle of the crowned area. Wear limits: 32 mm pin = 30 mm, 38 mm pin = 36 mm. The coupling pin must be replaced if the dimensions are below the limits. Separately available Walterscheid test gauges can be used to comfortably control the wear limits.
3. Vertical play:
Should the vertical play on the coupling pin exceed 2 mm in closed state, the coupling mechanism must be replaced, including the coupling pin.
4. Saddle sleeve (3):
The saddle sleeve must be replaced before the saddle of the sleeve is so worn that the trailer ring rests directly on the bottom lip of the clevis. The same applies if the hole in the saddle sleeve is so damaged (deformed or widened) that, when dropping, the coupling pin strikes the edge of the saddle

sleeve and no longer engages. The inside dimension of the saddle sleeve may not exceed 31.5 mm. The opening must be clear at all time, so that any dirt can fall through.

5. Guide sleeve (4):

If, when coupling, the pin has so much play in the towing direction that it does not drop into the saddle sleeve, its lower end instead coming to rest on the saddle sleeve, the guide sleeve is worn, and the coupling must be repaired.



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:

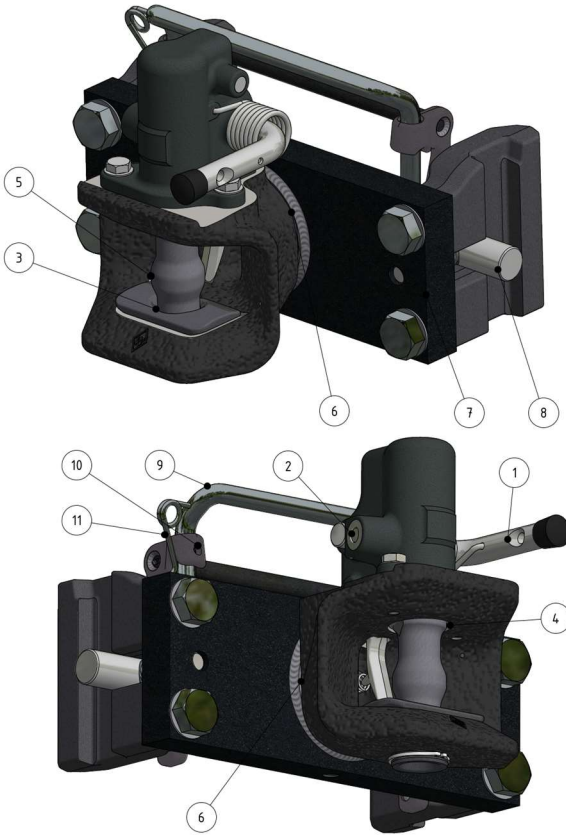
- > The user is obliged to always operate the coupling in perfect condition and to forbid its use by unauthorised persons.
- > The loads indicated on the type plate may not be exceeded.
- > Unauthorised conversion or modification of the coupling is not permitted.

4. CALCULATION OF CHARACTERISTIC VALUES FOR CORRECT OPERATION OF THE COUPLING ON AGRICULTURAL AND FORESTRY VEHICLES

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



Bild 1
Figure 1



Legende:

- 1..... Handhebel
- 2..... Sicherungsbolzen
- 3..... Sattelhülse
- 4..... Führungshülse
- 5..... Kuppelbolzen
- 6..... Drehgelenk
- 7..... Flanschplatte
- 8..... Arretierbolzen
- 9..... Arretierbügel
- 10..... Arretierstück
- 11..... Arretierfeder

Legend:

- 1..... hand lever
- 2..... safety pins
- 3..... saddle sleeve
- 4..... guide sleeve
- 5..... coupling pin
- 6..... clevis bearing
- 7..... slider
- 8..... locking bolt
- 9..... locking bracket
- 10..... locking piece
- 11..... locking spring

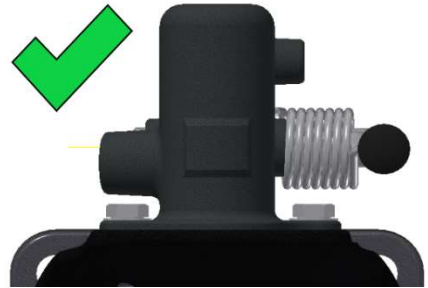
Légende:

- 1..... levier manuel
- 2..... boulon de sécurité
- 3..... douille de selle
- 4..... douille de guidage
- 5..... boulon d'accouplement
- 6..... articulation pivotante
- 7..... plaque à bride
- 8..... boulon d'arrêt
- 9..... etrier d'arrêt
- 10..... pièce d'arrêt
- 11..... ressort d'arrêt

Bild 2
Figure 2



Kupplung geöffnet
Coupling open
Attelage ouvert



Kupplung geschlossen und gesichert
Coupling closed and locked
Attelage fermé et sécurisé