

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

26.11.2021

KUPPLUNGSPLATTE KuP

COUPLING PLATE (SLIDER) KuP

PLAQUE D'ATTELAGE KuP

**WICHTIGE HINWEISE:**

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

**IMPORTATANT 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/)

# COUPLING PLATE (SLIDER) KuP

## 1. TECHNICAL DATA AND DESIGNATIONS:

### DESCRIPTION:

(See Figure 1)

Coupling plates are height adjustable sliding plates (sliders), which can be used exclusive in towing frames with guide rails. They are prepared for the attachment of flange couplings or other connecting devices with flange.

### OPERATING RANGE:

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

### TRAILER RINGS:

Please consider the operating instructions of the mounted connecting devices.

### TYPE APPROVALS AND CHARACTERISTIC VALUES:

#### ALL VERSIONS INSTEAD OF FLANGE SIZE 3:

GERMAN NATIONAL APPROVAL NO.: M 10036 and

EC COMPONENT TYPE-APPROVAL NO.: e1\*2009/144\*0480

#### CHARACTERISTIC VALUES:

- > Adm. D-value: 89,3 kN
- > Adm. Vertical load: 2000 daN (kg)  
(please consider the section „admissible coupling point“)

EC approval sign



0480

#### ALL VERSIONS WITH FLANGE SIZE 3:

##### APPROVAL UN/ECE R147:

Classification of mechanical coupling device: f

#### CHARACTERISTIC VALUES:

- > Adm. D-value: 45,0 kN
- > Adm. Dc-value: 45,0 kN
- > Adm. V-value: 40,2 kN
- > Adm. vertical load: 1250 daN (kg)  
(please consider the section „admissible coupling point“)
- > Max. speed: 60 km/h

R147-approval sign



147R-00 0043D



### 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 of the coupling above the PTO, attention should be paid to the vehicle manufacturer's data regarding vertical loads.



### IMPORTANT:

Attention must be paid to the D value and the maximum vertical load of the towing frame in this context. The lower value applies in each case.

## VERSIONS AND DIMENSIONS:

(See Figure 2)

The coupling plates can be delivered in different dimensions and different mounting holes according to the following tables. They are prepared for the attachment of trailer hitches or comparable connecting devices with different flange dimensions.

Versions	Coupling plate				guide rail of towing frame		
	Width A	Thickness B	Locking Pin $\varnothing$ C	Width Area D	Width	Slot	Hole $\varnothing$
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
KuP389-y	389	31,7	25	349	390	32,0	25,5
KuP335-y	335	29,7	22	300	336	30,0	23
KuP333-y	333,5	37,65	25	280	334,5	38,0	25,5
KuP329/30-y	329	30	20	279	330	31,0	23
KuP329-y	329	31,7	25	279	330	32,0	25,5
KuP322-y	322	29,7	22	287	323	30,0	23
KuP320-y	320	37,65	25	280	321	38,0	25,5
KuP314-y	314	30	20	284	315	31,0	23
KuP311-y	311	30,3	22	281	312	30,3	23
KuP310-y	310	37,65	25	276	311	38,0	25,5
KuP309-y	309	29,7	22	274	310	30,0	23
KuP306-y	306	37,65	25	266	307	38,0	25,5

Table 1

#### VERSIONS (= ORDER DESIGNATION):

Versions are always expressed as: KuP xxx-y, with xxx representing for the total width of the plate and y the flange size.

Example: KuP322-45: coupling plate 322 wide with hole pattern 140x80, hole size M20

#### FLANGE:

(See Figure 2)

Flange size	Hole pattern a x b	hole- $\varnothing$ c	Mounting screws	Tightening torque	Max. Flange dimensions
	[mm]	[mm]		[Nm]	[mm]
3	120x55	M14	4 x M14	215	150x90
4	140x80	M16	4 x M16	335	180x120
45	140x80	M20	4 x M20	660	180x120
5	160x100	21	4 x M20	660	200x140

Table 2

The flange sizes correspond to the classes defined in EC directive 94/20/EG or ECE R55. Size 45 is a combination of 4 and 5.

Normally the bolts are not included in the scope of supply. Therefore the data of the vehicle manufacturers are to be preferred for attachment. With missing data the tightening torques \*) according to table 2 are to be considered:

\*) values are valid for a total coefficient of friction of  $\mu = 0.14$  (corresponds to non-lubricated slightly oiled and phosphatized surface quality).

#### ADMISSIBLE COUPLING POINT:

The maximum distance from the center of the guide rail of the coupling plate up to the coupling point of the mounted connecting device amounts to 222 mm. Figure 3 shows exemplarily implemented couplings. If the coupling point distance is more than 222 mm, the coupling plate must be examined if necessary in single approvals (in the area of application of the StVZO) with adapted characteristic values. In that case contact us or your specialist dealer.



**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)

**ATTACHMENT OF THE COUPLING:**



**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.

**INSTALLATION OF COUPLING PLATE INTO THE TOWING FRAME:**

(See Figure 1 and 4)

- > Pull the latch pins (3) and at the same time move them inwards until they engage in the inner position. This will push the locking pins (2) completely into the coupling plate (1).
- > Hold the coupling plate by the handle and insert it from above into the guide rails of the towing frame.
- > Push to the desired height position in the towing frame, pull the latch pins (3) and at the same time move them outwards until the latch pins (3) can lock into their outer end position by releasing them. At the same time the locking pins (2) move into the corresponding holes on the towing frame.
- > The guide of the slider may not project beyond the guide slots of the frame.
- > To protect against excessive dirt, a double latch pin (see Fig. 4) can be used instead of the standard latch pin. This also closes the free locking hole for the latch pin. While moving the latch pin, the double latch pin must be turned through 180 ° at the same time. Fig. 4 shows on the left the double latch pin locked outside and on the right side the locked pin inside.



**WARNING:**

After assembling, make sure that the locking pins (2) are engaged in the holes of the guide rails and the latch pins (3) in the outer positions in the coupling plate (1). Only then is there a proper locking! The coupling may only be operated in locked condition.

### INSTALLATION OF FLANGE COUPLINGS ONTO THE COUPLING PLATE:

Flange couplings are bolted onto the coupling plate by means of 4 screws DIN EN 24014, DIN EN 24017 or ISO 4762. A torque wrench must be used to obtain the correct tightening torque.

Flange couplings with hole patterns in accordance with flange size -5 are bolted onto the coupling plate by means of 4 screws M20 according to ISO 4017 or ISO 4762 as well as 4 nuts M20 according to ISO 4032.

With other kinds of bolts or qualities contact us or your specialist dealer.

It is to be guaranteed, that the minimum grip of the used screws corresponds to 1.2 x nominal diameters. If necessary, the screw length is to be adapted.

With flanges -5 the screw length is to be selected in such a way that the M 20 nut carries completely.

### 3. OPERATION:

(See Fig. 1)



#### 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.

### HEIGHT ADJUSTMENT (SEE ALSO INSTALLATION) OF THE COUPLING PLATE IN THE TOWING FRAME:

(See Figure 1 and 4)

- > Hold the coupling plate by the handle and pull the latch pins (3) and at the same time move them inwards until they engage in the inner position. This will push the locking pins (2) completely into the coupling plate (1).
- > Push the coupling plate to the desired height position in the towing frame.
- > Pull the latch pins (3) and at the same time move them outwards until the latch pins (3) can lock into their outer end position by releasing them. At the same time the locking pins (2) move into the corresponding holes on the towing frame.
- > The guide of the slider may not project beyond the guide slots of the frame.
- > To protect against excessive dirt, a double latch pin (see Fig. 4) can be used instead of the standard latch pin. This also closes the free locking hole for the latch pin. While moving the latch pin, the double latch pin must be turned through 180 ° at the same time. Fig. 4 shows on the left the double latch pin locked outside and on the right side the locked pin inside.



#### WARNING:

After each height adjustment, make sure that the locking pins (2) are engaged in the holes of the guide rails and the latch pins (3) in the outer positions in the coupling plate (1). Only then is there a proper locking! The coupling may only be operated in locked condition.

### 4. MAINTENANCE

#### CARE

- > 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.
- > 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 latch pin or locking pin), lubricate the new parts with fresh grease. For lubrication use a water-resistant, multi-purpose grease (Grease type: lithium saponified, consistency class: NL-GI2).

**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 COUPLING PLATE ON AGRICULTURAL AND FORESTRY VEHICLES

See attachment or separate document BA\_TASC\_400029, [www.walterscheid.com/downloads](http://www.walterscheid.com/downloads)



BILD 1  
FIGURE 1



KuP 389-4

Legende:

- 1..... Kupplungsplatte
- 2..... Rastbolzen
- 3..... Raststift

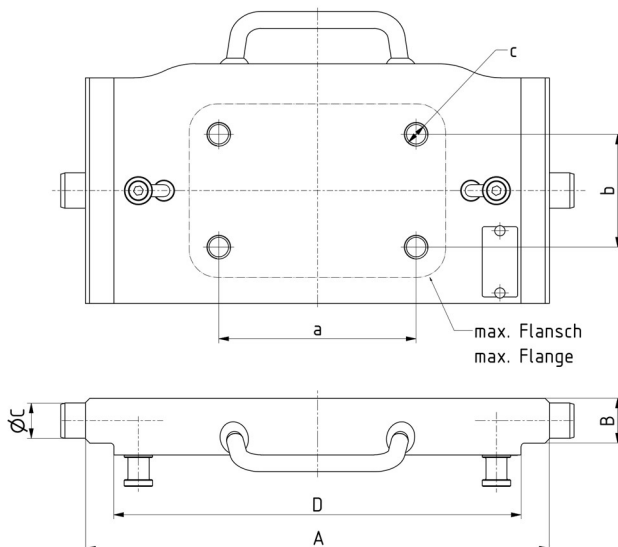
Legend:

- 1 ..... coupling plate
- 2 ..... locking pins
- 3 ..... latch pin

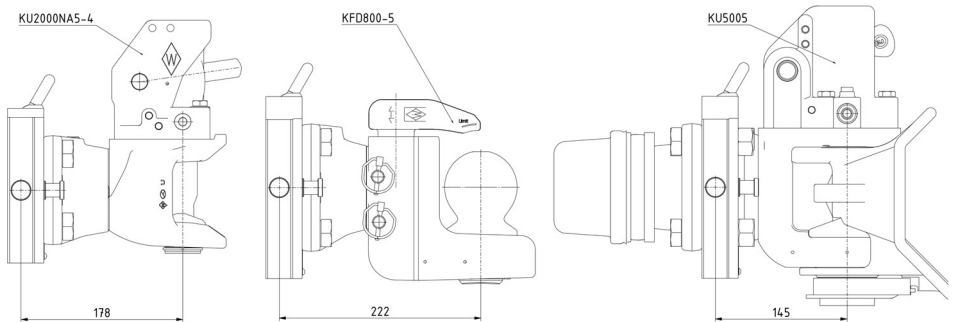
Légende:

- 1 ..... plaque d'attelage
- 2 ..... boulons de verrouillage
- 3 ..... boulons d'arrêt

BILD 2  
FIGURE 2



Maße / dimensions  
BILD 3  
FIGURE 3



Zulässige Stützabstände / admissible coupling point / Espacement admissible des supports

BILD 4  
FIGURE 4



Kupplungsplatte KuP mit Doppelbolzen / coupling plate KuP with double pin /  
Plaqué d'attelage KuP avec boulons doubles