

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

13.09.2021

ZUGKUGELKUPPLUNG ZKK80-230

COUPLING HEAD ZKK80-230

ACCOUPLLEMENT À BOULE ZKK80-230

WICHTIGE HINWEISE:

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

IMPORTATANT NOTES:

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

NOTES IMPORTANTES:

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

COUPLING HEAD ZKK80-230

1. DESIGNATIONS AND TECHNICAL DATA:

APPLICATION:

For use on agricultural or forestry trailers.

GERMAN APPROVAL NUMBER: M 10157

Connecting device acc. to regulation (EU) 2015/208: Coupling head

CHARACTERISTIC VALUES:

- > Adm. D-value: 50,2 kN
- > Adm. vertical load: 2000 daN (kg)
- > Max. speed: 40 km/h

COUPLING BALLS:

The coupling ball (also called spherical cap) is suitable for connection with coupling balls 80 according to ISO 24347. When assembling the towing vehicle, it must be ensured that the coupling ball attached to the towing vehicle for connection to the coupling head is type-approved or, in the area of application of the Road Traffic Licensing Regulation (StVZO), has an individual certificate. In particular, the coupling balls must ensure the required characteristic values and the required horizontal, vertical and axial swivel angles of the drawbar coupling.



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.



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:

INSTALLATION OF THE COUPLING HEAD:



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.



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 coupling head can be mounted on the towing device of the trailer. The drawbar must be sufficiently dimensioned to transmit the characteristic values approved for the drawbar coupling. During assembly, the contact surfaces of the coupling head and drawbar must be clean and free of grease. Priming is permissible.

The coupling heads are fastened by means of 2 bolts M24 - 8.8 and 2 nuts M24 - 8. The bolts are pushed transversely to the direction of travel through the guide tubes of the ball coupling ZKK 80-230 and through the retaining plates of the towing device of the trailer and fastened by means of the 2 nuts M24 - 8. As a rule, the fastening bolts and nuts are not included in the scope of delivery of the coupling head, therefore the specifications of the trailer/drawbar manufacturer for fastening must be observed.

If there are no specifications, a standard tightening torque of 800 Nm *) applies. For other types of bolts or qualities, contact us or your specialist dealer.

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

3. OPERATION:

The coupling head is suitable for connection with coupling balls 80 according to ISO 24347. The coupling balls in combination with the retainer must in particular ensure the required swivel angles of the coupling head of +/- 60 degrees in the horizontal direction and +/- 20 degrees in the vertical and axial direction. When the towing vehicle and trailer are in a horizontal position, the coupled coupling head must be approximately horizontal to the roadway (angular deviation from the horizontal upwards and downwards not more than 3°) in order not to obstruct the customary pivoting angles between the coupling ball and the coupling head.



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.

4. MAINTENANCE:

As part of the vehicle maintenance, the contact surfaces at the coupling point must be lubricated and the fastening screws of the coupling head must be checked for tightness using a torque spanner. Loose bolts (tightening torques lower than under point 2) must be replaced with new bolts. Repairs and welding work on the coupling head are not permitted. Damaged, deformed or worn coupling heads must be replaced. The permissible longitudinal and lateral play between the coupling ball and the coupling head may be 1.5 mm, the permissible vertical play between the coupling head and the coupling ball retainer may be 5 mm. If the wear limits are exceeded, the worn parts must be replaced.

CARE

- > If there is a grease nipple on the coupling head, the ball can be supplied with grease via the central lubrication system.
- > If possible, avoid cleaning with high-pressure cleaners. If this is done, the coupling ball must be greased immediately.

- > For relubrication, remove the old grease and lubricate the coupling head with fresh grease. For lubrication use a water-resistant, multi-purpose grease (Grease type: lithium saponified, consistency class: NL-GI2).

WEAR LIMITS:

Designations	Nominal dimension	Wear limit dimension	Gauge
Coupling head inside	80,5 mm	82,2 mm	X
Coupling head outside	124 mm	123 mm	

(see also VdTÜV-Merkblatt 712).

For convenient checking of some wear limits, a separately available Walterscheid test gauge can be used.

If the wear limits are reached, the ball coupling and/or the ball must be replaced.

If the height play of the coupled coupling head is more than 5 mm, the corresponding parts such as the retainer, coupling ball or coupling head 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.

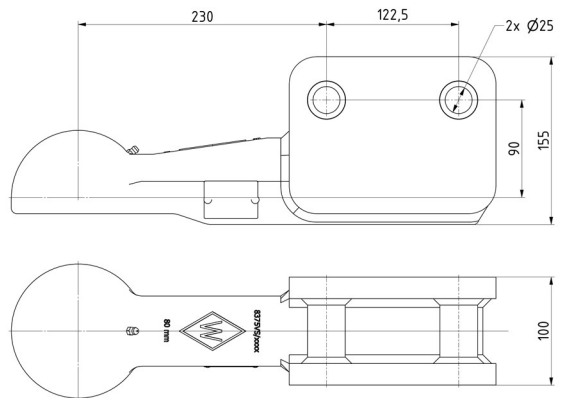
**WARNING:****SAFETY NOTES:**

- > The user is obliged to always operate the coupling head 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 head is not permitted.

5. CALCULATION OF CHARACTERISTIC VALUES FOR CORRECT OPERATION OF THE COUPLING HEAD ON AGRICULTURAL AND FORESTRY TRAILERS

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

BILD 1
FIGURE 1



Zugkugelkupplung ZKK80-230
Coupling head ZKK80-230
Accouplement à boule ZKK80-230