

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

18.03.2022

ZUGÖSE Zo5100, Zo5110, Zo5145, Zo5168

TOWING RING Zo5100, Zo5110, Zo5145, Zo5168

ANNEAU DE REMORQUAGE Zo5100, Zo5110, Zo5145,
Zo5168

WICHTIGE HINWEISE:

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

IMPORTANT NOTES:

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

NOTES IMPORTANTES:

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

TOWING RING Zo5100, Zo5110, Zo5145, Zo5168








1. DESIGNATIONS AND TECHNICAL DATA:

APPLICATION:

For use on agricultural or forestry trailers.

The ring dimensions of the towing ring and shank complying with ISO 20019.

TYPE APPROVALS AND CHARACTERISTIC VALUES: SEE FOLLOWING TABLE

Type/Versions	Adm. D-value	Adm. vertical load	National approval number ABG	Approval sign according to acc. UN/ECE R55	Approval sign according to acc. VO(EU)2015/208	see
	[kN]	[daN]				
Zo5100	89,3	3000	M 10105	-	 00688 ND	Figure 1 Figure 2
Zo5110	89,3	3000	M 10105	 55R - 012340	 00688 ND	Figure 1 Figure 2
Zo5145	102,4	3000	M 9954	 55R - 011966	 00687ND	Figure 3 Figure 4
Zo5168	102,4	3000	M 9954	 55R - 011966	 00687ND	Figure 3 Figure 4



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 TOWING RING:**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 ring!

The attachment of the towing ring 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 towing ring can be mounted directly on the frame parts or on the towing device of the trailer via a mounting plate.

**IMPORTANT:**

The mounting plate and its welded seam connection must be sufficiently dimensioned to transmit the characteristic values approved for the towing ring. During assembly, the contact surfaces of the mounting plate and the flange of the towing ring must be clean and free of paint and grease. Priming is permissible.

The towing rings are attached by means of 8 bolts M16 or M20 - 10.9 - DIN EN 24014 (corresponds to DIN 933), DIN EN 24017 or ISO 4762 (corresponds to DIN 912). They must be tightened crosswise. As a rule, the fastening bolts are not included in the scope of delivery of the towing eye, therefore the trailer/drawbar manufacturer's specifications for fastening must be observed.

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

Type/Versions	Hole pattern A x B	Hole diameter C	Fixing screws	See
	[mm]	[mm]		
Zo5110	100x110	17	8 x M16	Figure 1
Zo5100	100x110	17	6 x M16	Figure 2
Zo5145	145x145	21	8 x M20	Figure 3
Zo5168	160/80x160/80	21	8 x M20	Figure 4

3. OPERATION:

The towing ring is suitable for connection with pin couplings according to ISO 6489-2, piton pins according to ISO 6489-4 and hook couplings according to ISO 6489-1. When assembling the towing vehicle, it must be ensured that the coupling device attached to the towing vehicle for connection to the towing ring is type-approved or, in the area of application of the Road Traffic Licensing Regulation (StVZO), has an individual certificate.

The connecting devices must ensure the required pivoting angle of the drawbar eye of +/- 60 degrees in the horizontal direction and of +/- 20 degrees in the vertical and axial direction. When the towing vehicle and trailer are in a horizontal position, the coupled towing eye must be approximately in a

horizontal position to the roadway (angle deviation from the horizontal upwards and downwards max. 3°) so as not to hinder the normal operating swivel angle between the coupling and the towing eye.



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 towing ring 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 towing ring are not permitted. Damaged, deformed or worn towing rings must be replaced. The inside diameter of the ring must not be larger than 53.3 mm at any point. A separately available Walterscheid test gauge can be used to conveniently check the wear limit.



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.

CARE

- > If possible, avoid cleaning with high-pressure cleaners. If this is done, the towing ring must be greased immediately.
- > For relubrication, remove the old grease and lubricate the towing ring with fresh grease. For lubrication use a water-resistant, multi-purpose grease (Grease type: lithium saponified, consistency class: NL-GI2).



WARNING:

SAFETY NOTES:

- > The user is obliged to always operate the towing ring 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 towing ring is not permitted.

5. CALCULATION OF CHARACTERISTIC VALUES FOR CORRECT OPERATION OF THE TOWING RING ON AGRICULTURAL AND FORESTRY TRAILERS

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

ANLAGE / ANNEX / FICHE:

BILD 1 / FIGURE 1
Zugöse Zo5110 / Towing ring
Zo5110 / Anneau de remorquage
Zo5110

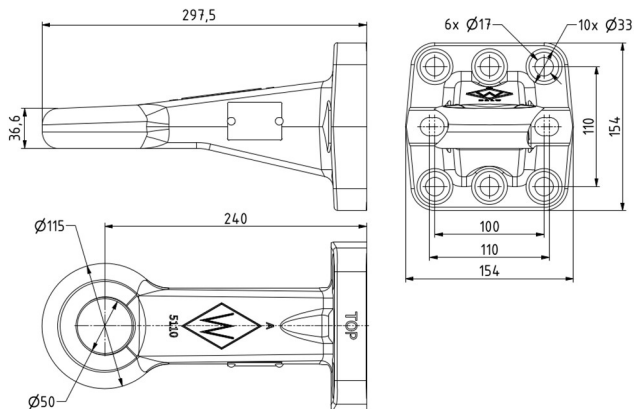


BILD 2 / FIGURE 2
Zugöse Zo5100 / Towing ring
Zo5100 / Anneau de remorquage
Zo5100

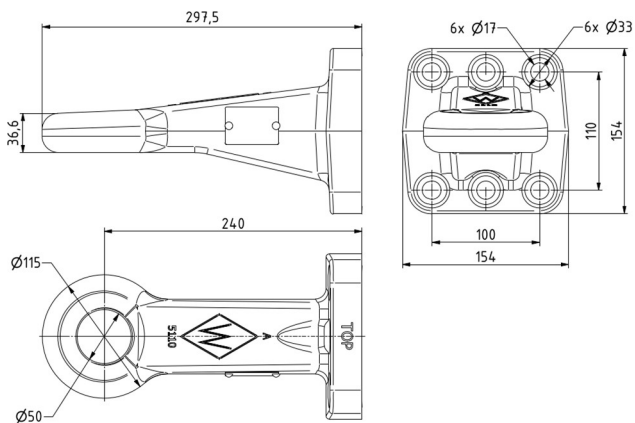


BILD 3 / FIGURE 3
 Zugöse Zo5145 / Towing ring Zo5145 /
 Anneau de remorquage Zo5145

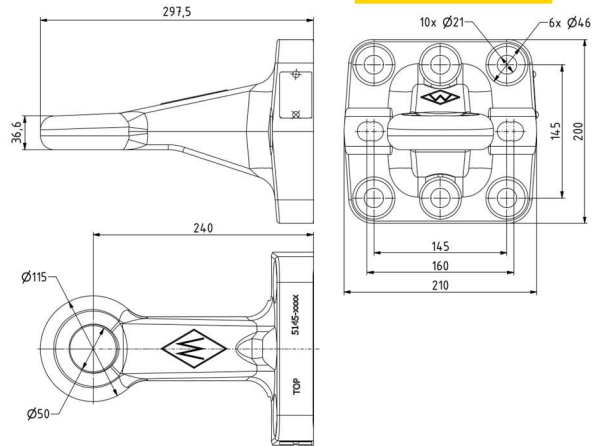


BILD 4 / FIGURE 4
 Zugöse Zo5168 / Towing ring Zo5168 /
 Anneau de remorquage Zo5168

