

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

29.04.2022

**MONTAGE VON VERBINDUNGSEINRICHTUNGEN:
RICHTWERTE FÜR ANZUGSMOMENTE VON BEFESTIGUNGSSCHRAUBEN
BEI FEHLENDEN ANGABEN DER FAHRZEUGHERSTELLER**

**ATTACHMENT OF THE CONNECTING DEVICES:
GUIDELINE VALUES FOR TIGHTENING TORQUES OF MOUNTING SCREWS
IF THE VEHICLE MANUFACTURER DOES NOT SPECIFY**

**MONTAGE DE L'ATTELAGE:
VALEURS INDICATIVES POUR LES COUPLES DE SERRAGE DES VIS DE
MONTAGE SI LE CONSTRUCTEUR DU VÉHICULE NE SPÉCIFIE PAS**

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/

ATTACHMENT OF THE CONNECTING DEVICES:

GUIDELINE VALUES FOR TIGHTENING TORQUES OF MOUNTING SCREWS IF THE VEHICLE MANUFACTURER DOES NOT SPECIFY

GENERAL:

The tightening torque is a torque with which screws are tightened during assembly. This torque is transferred to the screw or nut using an adjustable, suitable torque wrench. This generates an assembly preload force that is required for the secure installation of the screw.



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!

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.



IMPORTANT:

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 screw lengths must be dimensioned in such a way that there is at least 1.2 x the screw diameter of the screw-in length in the nut thread.

A torque wrench must be used to obtain the correct tightening torque.

SCOPE OF APPLICATION:

The following information relates to screws and nuts made of carbon steel and alloy steel with a metric thread. The fastening of connecting devices is done normally by means of screws quality 10.9.



WARNING:

The following table does not apply to screws or nuts made of other materials; in this case, only the information provided by the vehicle manufacturer applies. This applies in particular to threads in cast materials, e.g. on rear axles, transmission housings, etc.

ATTACHMENT OF THE CONNECTING DEVICES:

With missing data of the vehicle manufacturer, the following tightening torques are to be considered. The values are valid for a total coefficient of friction of $\mu = 0.14$ (corresponds to non-lubricated slightly oiled and phosphatized surface quality) and are based on VDI guideline 2230.

Thread size	Screw quality	tightening torque [Nm]
M10	10.9	79
M12	10.9	137
M14	10.9	218
M16	10.9	338
M18	10.9	469
M20	10.9	661
M24	10.9	1136

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