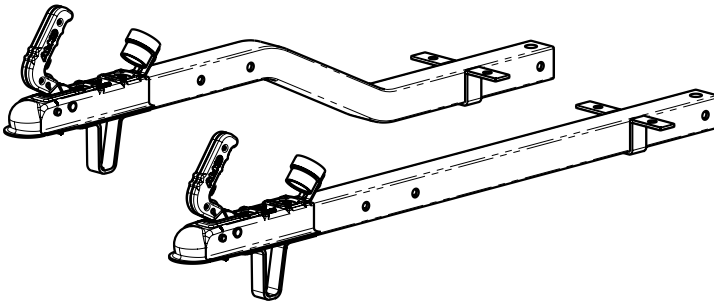


MONTAGEANLEITUNG

ZUGDEICHSEL R4 | K4 | R16

KUGELKUPPLUNG AK 7

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MONTAGE

Für Zugdeichseln:

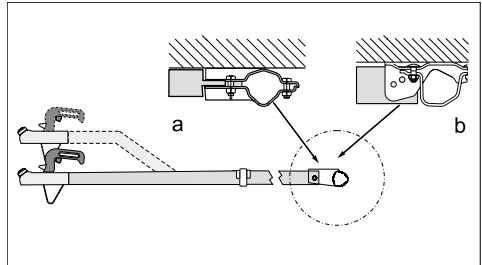
Typ R4, Ausf. A1, A3, A4

Typ K4, Ausf. A1, A2

Typ R16, Ausf. A

Zugdeichsel mit Achse und Klemmverbindung verschrauben

- Deichselanschlussprofil (a)
 - Klemmverbindung mit vier Sechskant-Schrauben M12 montieren.
- Deichselanschlussprofil (b)
 - Zugdeichsel mit einer Sechskant-Schraube M12 montieren.
 - Typ R16 (70 x 70) mit Distanzbuchse montieren.



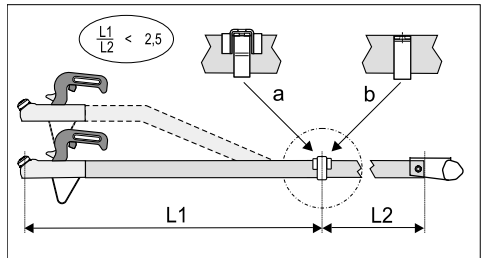
Zugdeichsel mit Auflagebock und Klemmbügel verschrauben

- Klemmbügel mit zwei Schrauben M12 an Rahmen (Vorderkante Aufbau) montieren.
 - Gleiche Montage bei Auflagebock a und b.



ACHTUNG!

Das Längenverhältnis ($L_1 : L_2 < 2,5$) einhalten!



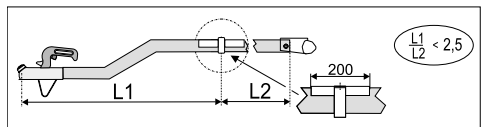
Optional: Typ K4, Ausf. A2

$L_{1\max} = 1040 \text{ mm}$



ACHTUNG!

Das Längenverhältnis ($L_1 : L_2 < 2,5$) einhalten!



SICHERHEITSHINWEISE



ACHTUNG!

Die Anziehdrehmomente müssen nach 100 km Fahrstrecke überprüft und gegebenenfalls auf die geforderten Werte nachgezogen werden!

TECHNISCHE DATEN

Typ	R4 / K4	R16
Zugdeichsel, Vierkantrohr	60 x 60 mm	70 x 70 mm
Empfohlene Schrauben	M12 x 90 - 8.8	M12 x 100 - 8.8
Anziehdrehmoment	75 Nm	75 Nm

Maximal freie Deichsellänge bestimmen

Typ R4	Typ K4	Typ R16
<ul style="list-style-type: none"> ■ A1: 60 x 60 x 3 ■ A3: 60 x 60 x 4 ■ A4: 60 x 60 x 5 	<ul style="list-style-type: none"> ■ A1: 60 x 60 x 3 ■ A2: 60 x 60 x 4 	<ul style="list-style-type: none"> ■ A: 70 x 70 x 4
<p>GA [kg] vs L1 [mm] for Typ R4. Curves for A1 (1190mm), A3 (1470mm), and A4 (1750mm). Y-axis: 500-750 kg. X-axis: 1200-2200 mm.</p>	<p>GA [kg] vs L1 [mm] for Typ K4. Curves for A1 (1040mm) and A2 (1450mm). Y-axis: 500-750 kg. X-axis: 1000-2000 mm.</p>	<p>GA [kg] vs L1 [mm] for Typ R16. Curve for Ausf. A. Y-axis: 500-750 kg. X-axis: 2100-2900 mm.</p>



ACHTUNG!

Die maximal zulässige freie Deichsellänge (L1) einhalten!

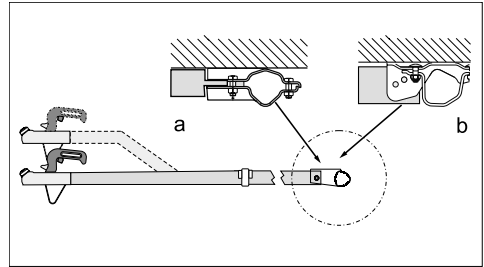
INSTALLATION

For drawbar:

Type R4, models A1, A3, A4	Type K4, models A1, A2	Type R16, models A
----------------------------	------------------------	--------------------

Bolting the drawbar to the trestle and clamping bracket

- Drawbar connection profile (a)
 - Fit the clamping bracket with four M12 hexagon bolts.
- Drawbar connection profile (b)
 - Fit the drawbar using an M12 hexagon bolt.
 - Typ R16 (70 x 70) mount with spacer bush.



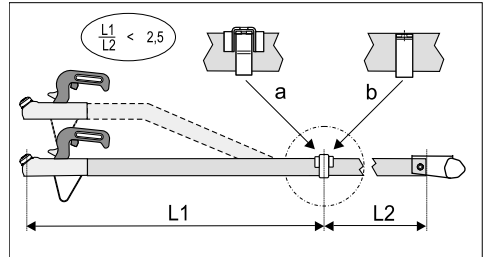
Bolting the drawbar to the trestle and clamping bracket

- Attach the clamping bracket to the frame (front edge of the assembly) using two M12 bolts.
 - Assembly procedure is the same for trestle a and b.



CAUTION!

Observe the length ratio ($L1 : L2 < 2,5$)!



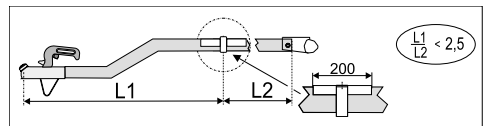
Optional: Type K4, model A2

$L1_{max} = 1040$ mm



CAUTION!

Observe the length ratio ($L1 : L2 < 2,5$)!



SAFETY INSTRUCTIONS



CAUTION!

The tightening torques must be checked after 100 km and retightened to the prescribed values if necessary!

TECHNICAL DATA

Type	R4 / K4	R16
Drawbar, rectangular hollow section	60 x 60 mm	70 x 70 mm
Recommended bolts	M12 x 90 - 8.8	M12 x 100 - 8.8
Tightening torque	75 Nm	75 Nm

Determining the maximum free drawbar length

Type R4	Type K4	Type R16
<ul style="list-style-type: none"> ■ A1: 60 x 60 x 3 ■ A3: 60 x 60 x 4 ■ A4: 60 x 60 x 5 	<ul style="list-style-type: none"> ■ A1: 60 x 60 x 3 ■ A2: 60 x 60 x 4 	<ul style="list-style-type: none"> ■ A: 70 x 70 x 4
<p>The graph for Type R4 shows the relationship between GA [kg] (y-axis, 500 to 750) and L1 [mm] (x-axis, 1200 to 2200). Three curves are shown for variants A1, A3, and A4. A1 starts at 750 kg for 1190 mm and ends at 500 kg for 2200 mm. A3 starts at 750 kg for 1470 mm and ends at 500 kg for 2200 mm. A4 starts at 750 kg for 1750 mm and ends at 500 kg for 2200 mm.</p>	<p>The graph for Type K4 shows the relationship between GA [kg] (y-axis, 500 to 750) and L1 [mm] (x-axis, 1000 to 2000). Two curves are shown for variants A1 and A2. A1 starts at 750 kg for 1040 mm and ends at 500 kg for 2000 mm. A2 starts at 750 kg for 1450 mm and ends at 500 kg for 2000 mm.</p>	<p>The graph for Type R16 shows the relationship between GA [kg] (y-axis, 500 to 750) and L1 [mm] (x-axis, 2100 to 2900). A single curve is shown for variant Ausf. A, starting at 750 kg for 2100 mm and ending at 500 kg for 2900 mm.</p>



CAUTION!

Observe the maximum permissible free drawbar length (L1)!

MONTAGE

Pour timon de traction:

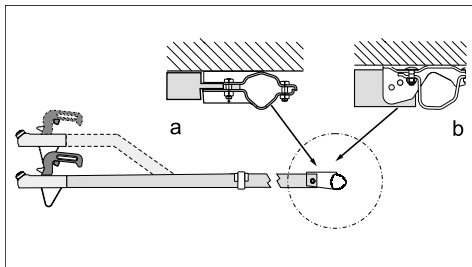
Type R4, modèle A1, A3, A4

Type K4, modèle A1, A2

Type R16, modèle A

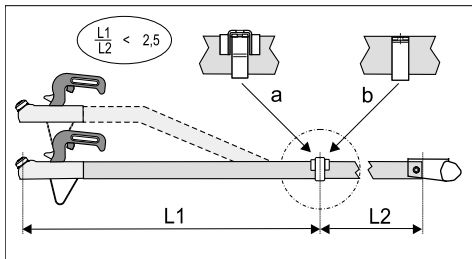
Vissage du timon de traction avec l'axe et le raccord

- Profil de raccord de timon (a)
 - Montez la bride de serrage avec les vis six pans M12.
- Profil de raccord de timon (b)
 - Montez le timon de traction avec une vis six pans M12.
 - Typ R16 (70 x 70) monter avec douille d'écartement.



Vissage du timon de traction avec la patte support et la bride de serrage

- Montez la bride de serrage avec deux vis M12 sur le cadre (arête avant de la structure).
- Montage identique pour la patte support a et b.



ATTENTION!

Respectez la proportion en longueur ($L1 : L2 < 2,5$)!

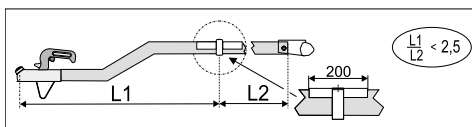
Optional: Type K4, modèle A2

$L1_{max} = 1040$ mm



ATTENTION!

Respectez la proportion en longueur ($L1 : L2 < 2,5$)!



CONSIGNES DE SÉCURITÉ



ATTENTION!

Les couples de serrage sont à contrôler après une distance parcourue de 100 km et à resserrer aux valeurs prescrites le cas échéant!

CARACTÉRISTIQUES TECHNIQUES

Type	R4 / K4	R16
Timon de traction, tube carré	60 x 60 mm	70 x 70 mm
Vis recommandées	M12 x 90 8.8	M12 x 100 8.8
Couple de serrage	75 Nm	75 Nm

Définition de la longueur libre maximale de timon

Type R4	Type K4	Type R16
<ul style="list-style-type: none"> ■ A1: 60 x 60 x 3 ■ A3: 60 x 60 x 4 ■ A4: 60 x 60 x 5 	<ul style="list-style-type: none"> ■ A1: 60 x 60 x 3 ■ A2: 60 x 60 x 4 	<ul style="list-style-type: none"> ■ A: 70 x 70 x 4
<p>Graph for Type R4 showing GA [kg] vs L1 [mm] for variants A1, A3, and A4. The y-axis (GA [kg]) ranges from 500 to 750. The x-axis (L1 [mm]) ranges from 1200 to 2200. Three curves are shown: A1 (1190mm), A3 (1470mm), and A4 (1750mm). All curves show a decreasing trend of GA as L1 increases.</p>	<p>Graph for Type K4 showing GA [kg] vs L1 [mm] for variants A1 and A2. The y-axis (GA [kg]) ranges from 500 to 750. The x-axis (L1 [mm]) ranges from 1000 to 2000. Two curves are shown: A1 (1040mm) and A2 (1450mm). Both curves show a decreasing trend of GA as L1 increases.</p>	<p>Graph for Type R16 showing GA [kg] vs L1 [mm] for variant Ausf. A. The y-axis (GA [kg]) ranges from 500 to 750. The x-axis (L1 [mm]) ranges from 2100 to 2900. One curve is shown: Ausf. A. The curve shows a decreasing trend of GA as L1 increases.</p>



ATTENTION!

Respectez la longueur libre de timon maximale admissible (L1)!

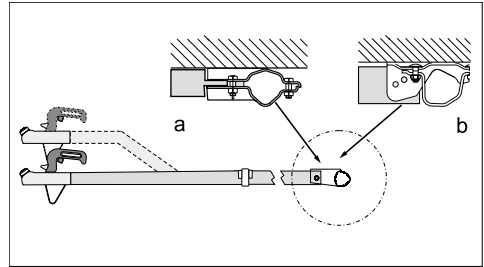
MONTAJE

Para lanza de tracción:

Tipo R4, modelo A1, A3, A4	Tipo K4, modelo A1, A2	Tipo R16, modelo A
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Atornillar la lanza de tracción con el eje y la unión por apriete

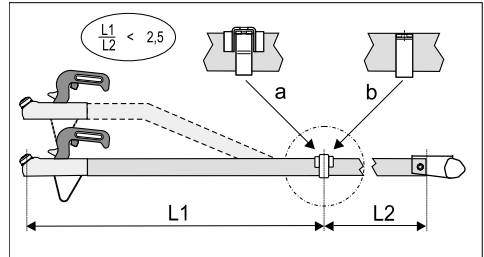
- Perfil de conexión de la lanza (a)
 - Montar la unión por apriete con cuatro tornillos hexagonales M12.
- Perfil de conexión de la lanza (b)
 - Montar la lanza de tracción con un tornillo hexagonal M12.
 - Typ R16 (70 x 70) montaje con casquillo distanciador.



Atornillar la lanza de tracción con el caballete de apoyo y el estribo de apriete

- Montar el estribo de apriete con dos tornillos M12 en el bastidor (borde delantero de la carcería).
- Montaje idéntico en el caballete de apoyo a y b.

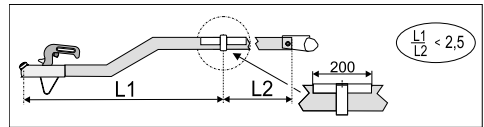
¡ATENCIÓN!
¡Respetar la relación de longitudes (L1 : L2 < 2,5)!



Optional: Tipo K4, modelo A2

$L1_{max} = 1040 \text{ mm}$

¡ATENCIÓN!
¡Respetar la relación de longitudes (L1 : L2 < 2,5)!



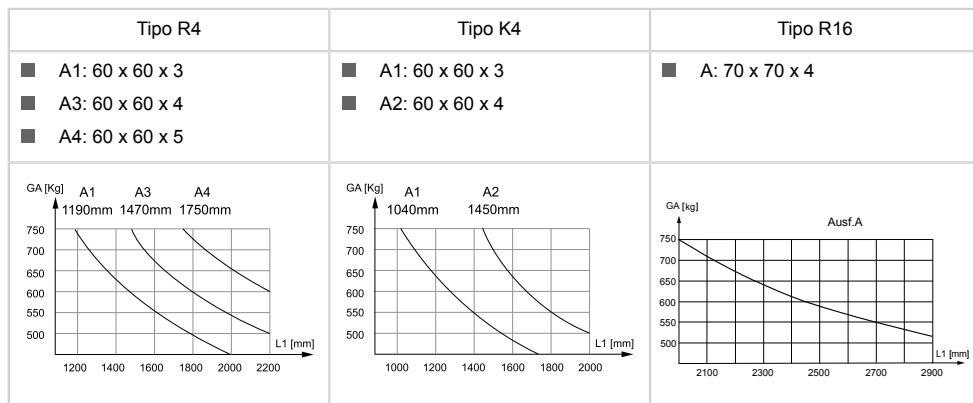
INSTRUCCIONES DE SEGURIDAD

¡ATENCIÓN!
¡Comprobar los pares de apriete después de recorrer 100 km y, si fuese preciso, reapretar los tornillos para alcanzar los valores exigidos!

DATOS TÉCNICOS

Tipo	R4 / K4	R16
Lanza de tracción, tubo cuadrado	60 x 60 mm	70 x 70 mm
Tornillos recomendados	M12 x 90 - 8.8	M12 x 10 - 0 8.8
Par de apriete	75 Nm	75 Nm

Determine la longitud máxima de barra de tiro libre



¡ATENCIÓN!

¡Respetar la longitud libre máx. admisible de la lanza (L1)!

MONTAGGIO

Per asta di attacco:

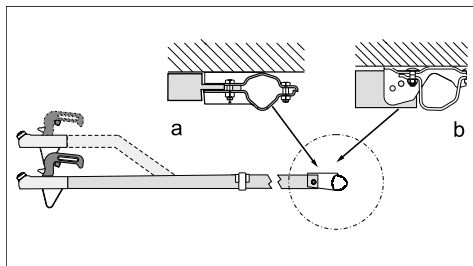
Tipo R4, modello A1, A3, A4

Tipo K4, modello A1, A2

Tipo R16, modello A

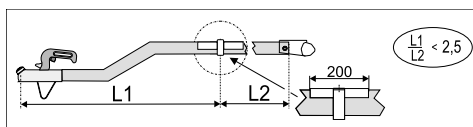
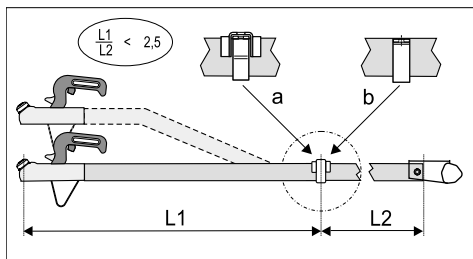
Avvitare l'asta di attacco all'asse e al collegamento a morsetto

- Profilo di collegamento asta (a)
 - Montare il collegamento a morsetto con quattro viti a testa esagonale M12.
- Profilo di collegamento asta (b)
 - Montare l'asta di attacco con una vite a testa esagonale M12.
 - Typ R16 (70 x 70) montare con anello distanziale.



Avvitare l'asta di attacco al cavalletto e alla staffa a morsetta

- Montare la staffa a morsetta sul telaio (spigolo anteriore della carrozzeria) con due viti M12.
 - Stesso montaggio per i cavalletti a e b.



ATTENZIONE!

Mantenere il rapporto proporzionale ($L1 : L2 < 2,5$)!

Optional: Tipo K4, modello A2

$L1_{max} = 1040$ mm



ATTENZIONE!

Mantenere il rapporto proporzionale ($L1 : L2 < 2,5$)!

INDICAZIONI DI SICUREZZA



ATTENZIONE!

Controllare le coppie di serraggio dopo aver percorso 100 km ed eventualmente serrare di nuovo ai valori richiesti!

DATI TECNICI

Tipo	R4 / K4	R16
Asta di attacco, tubo a sezione quadrata	60 x 60 mm	70 x 70 mm
Viti raccomandate	M12 x 90 - 8.8	M12 x 100 - 8.8
Coppia di serraggio	75 Nm	75 Nm

Determinazione della lunghezza libera massima dell'asta

Tipo R4	Tipo K4	Tipo R16
<ul style="list-style-type: none"> ■ A1: 60 x 60 x 3 ■ A3: 60 x 60 x 4 ■ A4: 60 x 60 x 5 	<ul style="list-style-type: none"> ■ A1: 60 x 60 x 3 ■ A2: 60 x 60 x 4 	<ul style="list-style-type: none"> ■ A: 70 x 70 x 4



ATTENZIONE!

Rispettare la lunghezza massima consentita dell'asta!

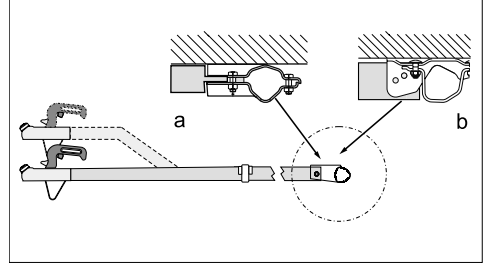
MONTAJ

Frensiz çeki okları:

Tip R4, model A1, A3, A4	Tip K4, model A1, A2	Tip R16, model A
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Frensiz çeki okunun aks ve sıkıştırma bağlantısı ile vidalanması

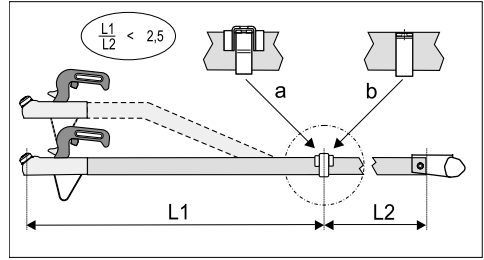
- Frensiz çeki oku bağlantı profili (a)
 - Sıkıştırma bağlantısını dört altıgen cıvata M12 ile monte edin.
- Frensiz çeki oku bağlantı profili (b)
 - Sıkıştırma bağlantısını bir altıgen cıvata M12 ile monte edin.
 - Typ R16 (70 x 70) aralama Bush ile montaj.



Frensiz çeki okunun destek mesnedi ve kenetleme askısı ile vidalanması

- Kenetleme askısını iki cıvata M12 ile çerçeveye (yapının ön kenarı) monte edin.
 - Destek mesnedi a ve b'de aynı montaj.

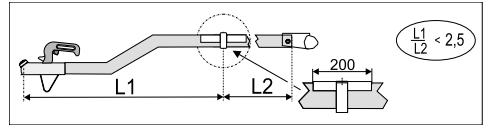
DUYURU!
Uzunluk oranına ($L1 : L2 < 2,5$) uyun!



Optional: Tip K4, model A2

$L1_{max} = 1040$ mm

DUYURU!
Uzunluk oranına ($L1 : L2 < 2,5$) uyun!



EMNİYET UYARILARI

DUYURU!
Sıkma torkları 100 km sürüş mesafesinden sonra kontrol edilmeli ve gerekirse talep edilen değerlere tekrar sıkılmalıdır!

TEKNIK VERİLER

Tip	R4 / K4	R16
Frensiz çeki oku dört köşe boru	60 x 60 mm	70 x 70 mm
Tavsiye edilen cıvatalar	M12 x 90 - 8.8	M12 x 100 - 8.8
Sıkma torku	75 Nm	75 Nm

Maksimum serbest frensiz çeki oku uzunluğunun belirlenmesi

Tip R4	Tip K4	Tip R16
<ul style="list-style-type: none"> ■ A1: 60 x 60 x 3 ■ A3: 60 x 60 x 4 ■ A4: 60 x 60 x 5 	<ul style="list-style-type: none"> ■ A1: 60 x 60 x 3 ■ A2: 60 x 60 x 4 	<ul style="list-style-type: none"> ■ A: 70 x 70 x 4
<p>GA [kg] vs L1 [mm] for Tip R4. Curves for A1 (1190mm), A3 (1470mm), and A4 (1750mm). GA ranges from 500 to 750 kg, L1 from 1200 to 2200 mm.</p>	<p>GA [kg] vs L1 [mm] for Tip K4. Curves for A1 (1040mm) and A2 (1450mm). GA ranges from 500 to 750 kg, L1 from 1000 to 2000 mm.</p>	<p>GA [kg] vs L1 [mm] for Tip R16. Curve for Ausf. A. GA ranges from 500 to 750 kg, L1 from 2100 to 2900 mm.</p>



DUYURU!

Maksimum izin verilen serbest frensiz çeki oku uzunluğuna uyun!

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