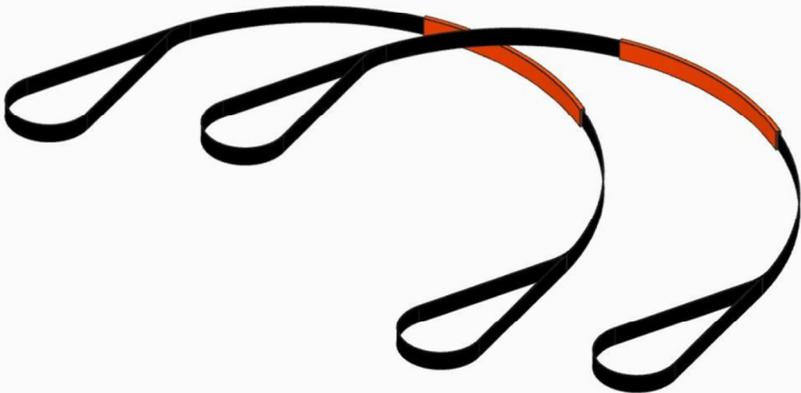




Original Operation Manual

Special webbing sling (looped webbing sling)

**18 mm wide, webbing color black,
single-layer, load bearing capacity (WLL
60 kg),
with red PVC edge protection**



One set consisting of two special webbing slings with edge protection

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Fundamentals

Safety

This operation manual is part of the scope of delivery. Always keep it readily to hand. To avoid personal injury or material damage, observe the safety instructions in the operation manual.

 CAUTION	
	<p>Before commissioning, make sure to read and follow the operation manual.</p>
<p>Failure to comply with safety and security regulations results in:</p> <p>Serious injury and product defects</p> <ul style="list-style-type: none"> ▶ Observe the safety instructions in the operation manual. ▶ Carefully read the operation manual in full. ▶ This product may only be used by persons who have been commissioned and instructed by the owner. 	

Structure of safety instructions

This operation manual uses the following designations and symbols for hazardous situations, based on the harmonization of DIN EN ISO 7010, IEC 82079 and ANSI Z.535.6.

Warning levels

Depending on the severity and probability of their consequences, dangers are indicated by a signal word and associated warning color and, where appropriate, the safety symbol.



WARNING

Indicates a hazardous situation that could lead to death or serious (irreversible) injuries unless it is avoided.



CAUTION

Indicates a hazardous situation that could lead to medium or minor (reversible) injuries unless it is avoided.

CAUTION

Indicates a situation that could lead to damage to the product and/or its function, or to an object in its vicinity, unless the situation is avoided.

Safety symbol



The safety symbol indicates potential **sources of injury**.

Follow all the instructions associated with the safety symbol in order to avoid injuries or death.



CAUTION

The special webbing sling is designed for a specific slinging operation and may only be used for this slinging operation. Observe the generally applicable information in DGUV 100-500.

The special webbing sling may only be used for lifting and transporting the loads described in the corresponding Workshop Manual and with the relevant slinging methods.

The operation manual applies to the following products:

- **Special webbing sling (looped webbing sling), 18 mm wide**
- **Webbing color black, single-layer**
- **Load bearing capacity (WLL 60 kg)**
- **with red PVC edge protection**

Particular reference is made to the following applicable regulations and technical rules:

- DIN EN 1492-1 Webbing slings made of man-made fibers
- DGUV 100-500 Operation of lifting equipment for lifting operations
- DGUV Information 209-061 – Use of webbing slings and round slings made of man-made fibers
- DGUV Information 209-013 – Slingers/signalmen

If applicable, additional special regulations should be taken into consideration, e.g. when transporting hazardous substances.

General safety instructions



 WARNING	
	<p>Lifting loads involves dangers that may result in the load falling if the rules are not observed, resulting in death or severe injuries.</p>
	<p>Protect yourself by wearing personal protective equipment.</p> <p>When transporting loads, always wear a hard hat, work shoes and gloves.</p>
	<p>There is a risk of trapping limbs. Never reach between the load and webbing sling.</p>




WARNING

When using the special webbing sling, observe the general information for high-voltage vehicles in the corresponding infomedia provided by the Volkswagen Group.

In addition, always observe the risk classifications for the high voltage system and the instructions in the corresponding repair manual.

Before removing the battery, ensure that the high-voltage system is de-energized, as described in the repair manual.

Before removing the module groups, ensure that the high-voltage system is de-energized, as described in the repair manual.

Selecting the sling gear



CAUTION

- Select sling gear of a type, length and fastening method that are appropriate to the load for the intended transport and are able to hold the load securely without inadvertent movements. An unsuitable choice of load bearing capacity and/or slinging method may result in breakage.



WARNING

- The special webbing sling may not be used with sharp-edged loads. It should only ever be used with the edge protectors included in the scope of delivery.
- Do not use at temperature ranges outside -40°C to $+100^{\circ}\text{C}$ (PES and PA) or -40°C to $+80^{\circ}\text{C}$ (PP).
- Protect the special webbing sling against ultraviolet radiation.
- Avoid contact with acids or alkalis.

The special webbing sling must never be loaded beyond its load bearing capacity!

Commissioning the special webbing sling



CAUTION

Before each use of the special webbing sling, check it for obvious defects such as cuts in the surface and lifting edge or deformation caused by heat, due to e.g. friction or radiation.

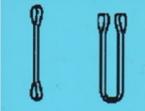
Check that its identification and dimensions are correct and that the edge protection is present and positioned correctly. Never use a product that is defective or missing its identification.

Identification of the special webbing sling

The label required by DIN EN 1492-1 is stitched into the special webbing sling. The label contains the following information:

- WLL = working load limit in the direct slinging method
- Specified in kg
- Material:
- PES = polyester, blue label
- Usable length in meters
- Year of manufacture
- Manufacturer's identifier DD
- Traceability code
- CE mark
- Specification of applicable standards
- Load bearing capacity with conventional slinging methods

The label also includes application-specific identifiers.

<p>WLL 60 kg</p> <p>Werkstoff: PES</p> <p>Länge L_1 1,0 m</p> <p>Herstelljahr 2017</p> <p>Hebeband</p> <p>VW T10588</p> <p>AG WE-D45/MA</p> <p>Dotierzych Hartmannstr. 8 D-44147 Dortmund</p> <p>CE</p> <p>DD 00000000000</p> <p>In Anlehnung an EN 1492-1</p>	 <p>einfach WLL 60 kg doppelt WLL 120 kg</p> <p>Nicht geschnürt einsetzen!</p>  <p>WLL 84 kg</p>  <p>WLL 60 kg</p>	<p>Benutzerinformation für textile Anschlagmittel wie Mehrweg-Hebebinden und Rundschlingen</p> <ul style="list-style-type: none"> • Anschlagmittel zum Heben und Transportieren von Lasten dürfen nur von unterwiesenen und beschulten Personen verwendet werden. • Anschlagmittel (einschließlich der Tragfähigkeit WLL) können belastet werden: Anschlagmittel, Anschlagpunkte und Anschlagmittel zusammen, z.B.: Gewicht, Schweißpunkt, Abmengen und Oberfläche etc. • Der Nützlichkeitswinkel darf maximal 60° betragen. • Achtung! Die Tragfähigkeit WLL reduziert sich mit zunehmender Neigungswinkel. Eine falsche Auswahl oder zu große Neigungswinkel können zur Überbeanspruchung des Anschlagmittels und zum Laubsturz führen! • Anschlagmittel vor jedem Einsatz auf Schäden (z.B. Risse, Querschnitt) prüfen. Defekte dürfen nur von befähigten Personen durchgeführt werden. • Defekte oder abgenutzte Anschlagmittel dürfen nicht verwendet werden. • Das Anschlagmittel darf nicht verwendet werden (abgeworfen) bei: <ul style="list-style-type: none"> • Quer- oder Längsschnitten der Umarmung (Rundschlingeneinsatz) und ihrer Verbindung • einer Verlangsamung der Tragkraft (z.B. durch das Einwickeln in Hebebandrollen, Hebebandkanten, von mehr als 10 % des Hebebandumschlusses) • Schäden an der Verankerung, z.B. durch Quetschung, Schritte oder Haken • Unversichern oder teilweisem Elabst • Verwendung nur in Temperaturbereich: 40°C bis +100°C (PES und PA) bzw. bis +80°C (PP) • Einsatz in Chemikalien kann das Anschlagmittel chemisch (unabwägig) Herstellungsformationen einwirken. Herleitung nur mit Wasser. • Bei scharfen Kanten dürfen Anschlagmittel nicht ohne Vorkehrungen (z.B. aus PU, Mindeststärke 5 mm) eingesetzt werden. • Achtung! Hebebande: Schutzmaßnahmen z.B. PVC-Schläuche dienen nur als Arbeitsschutz und schützen nicht vor scharfen Kanten. • Darüber hinaus erfordern beschädigte Beschreibungen mit z.B. Verformungen, Anrisse oder Brüche des Abganges. Um Anschlagmittel zu verwenden, dürfen diese bei einem Neigungswinkel nicht mehrfach übereinander geschichtet werden. • Anschlagmittel dürfen nicht mit ihrer ganzen Breite tragen. Stützoberflächen dürfen nicht über die Breite hinaus geschichtet werden. • Überführung durch eine unfähige Person ist nicht zulässig. • Insauftraggeber (Personen mit Anschlagmitteln) stellt eine Gefahr für das Leben von Personen und Gütern dar. Insbesondere ist die Person im Gefahrenbereich nicht Last getragenen Vorrat vor pendelnder Last. • Beachten Sie die spezifischen Betriebsanleitung zum Produkt sowie die Bestimmungen der DIN EN 1492-1, 1492-2, BGR 500, BGR 501 und BGR 673. 	<p>User information for textile slings such as re-usable lifting slings and round sling</p> <p>Slings for lifting and transporting loads may be used only by instructed and assigned persons.</p> <ul style="list-style-type: none"> • Never exceed the working load limit (WLL) of slings! • Select suitable slings, attachment points and attachment methods, e.g.: weight, centre of gravity, dimensions and surface of the load. • The angle of inclination may not exceed 60°. • Caution! The working load limit WLL reduces with increasing angles of inclination. • An incorrect selection or an overly large angle of inclination can lead to overloading of the sling and to the load falling! • Impact slings for damage each time before use (slings) may not be carried out only by qualified persons. • Knots or worn slings may not be used. • The sling may not be used in the case of impairment state of wear, transverse or longitudinal cuts in the webbing (round sling knots) and its slitting. • A damaged/suitable carrying system one of a round sling. • Transverse or longitudinal cuts in the lifting fabric/lifting sling edges of more than 10% of the cross-section of the lifting sling. • Damages on slitting, e.g. due to brailing, rolls or haul. • Wobble or missing label. • Use only in the temperature range: 40°C to +100°C (PES and PA) or to +80°C (PP). • Contact with chemicals can destroy the sling! Clean information from the manufacturer without fail. Use only water for cleaning. • Slings may not be used on sharp edges without edge protection (e.g. made of PU, minimum thickness 5 mm). Caution! Conventional products (steel, iron, PVC boxes, saws only) to protect against abrasion and do not protect against sharp edges. <p>Beyond that, fittings with damages such as deformations, cracks or breaks are necessary discarding. In shorter slings, they may not be slung several times over one another during a lifting process. Slings must carry with their full width. Cross-layers/overly laid slings may not be laid over inspectors are to be carried out by a qualified person at least 1x annually. In particular, the person under or beside the load is at risk. Beware of swinging loads.</p> <p>Observe the detailed operating instructions of the product as well as the regulations and notes contained in the DIN EN 1492-1, 1492-2, BGR 500, BGR 501 and BGR 673.</p>
<p>Front</p>	<p>Rear</p>	<p>Info in German</p>	<p>Info in English</p>

**CAUTION**

The special webbing sling may not be used with the “choke hitch” slinging method.

Not every slinging method shown here is suitable for slinging every load.

direkt	ge-schnürt	umgelegt	
LA = 1	LA = 0,8	LA = 2 ($\beta \leq 7^\circ$)	LA = 1,4 ($\beta \leq 45^\circ$) LA = 1 ($\beta \leq 60^\circ$)
			$(\beta \leq 45^\circ)$ $(\beta \leq 60^\circ)$
			$(\beta \leq 45^\circ)$ $(\beta \leq 60^\circ)$

β = Angle of inclination (angle between perpendicular and the webbing sling)

LA = load lifting factor* (ratio of load bearing capacity in direct slinging method (LA = 1), load bearing capacity in the choke hitch slinging method (LA = 0.8))

CAUTION**Transporting the load**

Always follow best practice: plan the slinging, lifting and setting down procedure before starting the lifting operation.

1. Make preparations: determine the weight of the load and its center of gravity. Read the accompanying paperwork, observe the indicated attachment points and weight specifications on the load, or weigh the load with a crane weigher. Estimating the weight and center of gravity with the help of weight tables is not a suitable solution. You can only place the crane hook in the correct position if you have correctly determined the position of the center of gravity.
2. Inform the crane operator of the weight of the load.

3. Move the crane hook vertically above the load's center of gravity.
4. Slings the load: loads can slip or fall if they are attached incorrectly. A falling load can result in severe injuries or even death.

Attach the load in such a way as to avoid damaging the load or the sling gear.

To lift the load without it twisting or toppling, fulfill the following conditions:

- a) For single-strand sling gear, the attachment point must be vertically above the load's center of gravity.
- b) For two-strand suspension, the attachment points must be positioned equidistant on either side of, and above, the load's center of gravity.
- c) For three- and four-strand suspension, the attachment points must be positioned evenly distributed on the same plane around the load's center of gravity and above the load's center of gravity.



CAUTION

Always note angle of inclination α : the larger the angle of inclination, the smaller the load bearing capacity. Angles of inclination exceeding 60° are not permitted!



WARNING

Moving the load

When using a workshop hoist, move the load slowly and smoothly. The route must be clearly visible.

Setting down the load

The load must be set down slowly and in a controlled manner.

Wearing personal protective equipment (safety shoes and safety gloves) is mandatory (see page 6 of this operation manual).

In the case of three- and four-strand suspension and uneven loading, the assumption must be based on the load bearing capacity of a two-strand suspension according to the greatest angle of inclination. If different angles of inclination occur in the context of two-strand suspensions, the calculation must be based on the load bearing capacity of a single strand. Uneven distribution of load must always be expected if:

- The load is inelastic (e.g. concrete parts, cast iron, short beams etc.)
- The position of the center of gravity is not known
- The load has an uneven shape
- Different angles of inclination occur

Only use suitable and appropriately dimensioned attachment points.

Never reach under strapping!

Attach the webbing sling so that it bears the weight across its full width.

The end loops of looped slings must not be too short so that, when attached to a crane hook, for example, the opening angle of the loop does not exceed 20°. If the loops are too short, use shortening hooks, for example.



CAUTION

Opening angles exceeding 20° are not permitted!



Keep the sling's seams away from the hook area and away from other lifting devices. Avoid damaging the label. If more than one product is used to lift the load, all the products must be made of the same material (to ensure the same elongation values, for example).

CAUTION

Attention: Never sling using a basket hitch!

This rule does not apply to slinging of:

- Bulky loads, provided that the possibility of the sling gear sliding together and the possibility of the load shifting are excluded
- Long, rod-shaped loads under cross-beams, provided that skewing of the cross-beam is forcibly prevented and the load is underpinned in such a way as to prevent excessive bending. Skewing of the cross-beam does not need to be forcibly prevented if the properties and surface of the load or if the sling prevent the load or parts of the load from escaping.

When slinging loads with the “choke hitch” slinging method, looped slings may only be used with reinforced end loops. Webbing slings with a strong transverse rigidity, e.g. with a fixed coating, may only be used for this slinging method if they are fitted with fittings for a choke hitch.

The load bearing capacity of a choke hitch is only 80%!



CAUTION

The special webbing sling may not be used with the “choke hitch” slinging method.

If suspensions are used in such a way that not all the strands bear weight, the unused strands must be hooked up into the suspension head. This reduces the load bearing capacity to the capacity of the strands that are in use.

5. After slinging the load, exit the danger zone.
6. Reach an understanding with all the parties involved in the slinging operation. Warn parties who are not involved in the operation and are in the transport area and the unloading danger zone.



WARNING

Persons at risk include slingers and other persons present in the path of the transport route, for example.

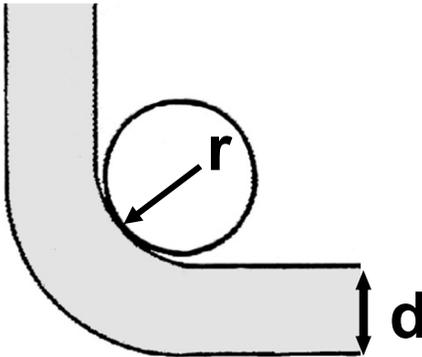
7. Give clear signals to the crane operator. Only one person should give signals.
8. When tentatively lifting the load, note whether
 - a) The load is caught or is stuck
 - b) The load is horizontal or suspended correctly
 - c) All strands are bearing the weight evenly.
9. If a load is suspended at an angle, lower it again and re-attach it.
10. Transport the load using the crane.
11. When transporting bulky parts and when there are wind loads, guide the load with a guide cable. While doing so, walk outside the danger zone, e.g. next to the mobile crane, not in front of it.
12. Follow the slinger's instructions when setting down the load.
13. Secure the load against toppling and falling apart.
14. Remove the sling gear from the load.
15. Attach the hooks of the sling gear to the suspension ring.
16. When lifting the unused sling gear, make sure that it does not catch on the load.



CAUTION

Important instructions for use and warnings

- Avoid sudden or jerky strains.
- Do not attempt to pull the webbing sling out from under the load if the load is still resting on it.
- Never drag the load over textile sling gear, never pull the webbing slings across floors or rough surfaces.
- Never leave the load in the sling gear if this could cause damage.
- In the case of loads with sharp edges or rough surfaces, textile sling gear may only be used if the areas at risk are protected. A sharp edge refers to a situation where the edge radius r is less than the thickness d .



WARNING

Always avoid sliding on a sharp edge as this may damage the webbing sling and the edge protection.

PVC and PU protective sleeves or other fittings (such as impregnations) only provide protection against abrasion from rough surfaces and do not protect against sharp edges.

- Webbing slings must not be subjected to loads when knotted or twisted.
- Webbing slings must not be extended by inserting them into each other or knotting them together.
- During cutting work, grinding work or welding work, protect the webbing slings against flying sparks.

CAUTION

The woven harness material used for lifting and transporting is dyed. Direct contact with surfaces (e.g. materials such as plastics, painted surfaces etc.) may result in pigments being transferred from the harness material to the surface of the loaded or hoisted goods. Possible discoloration or staining can be avoided by using suitable intermediate layers, for example.

Storing and using the special webbing sling

Cleaning the special webbing sling

Clean the special webbing sling with clear water, without chemical additives. Products that have become wet during use or cleaning should be hung up to dry in the air. Never heat up products or accelerate the drying process in any other way.

Storing the special webbing sling

Before putting the webbing sling into storage, examine it for damage that may have been incurred during use. Do not put damaged sling gear into storage. When not in use, store sling gear on racks in a clean, dry and well-ventilated area away from sources of heat, avoiding contact with chemicals, smoke gases, corrosive surfaces, direct sunlight or other sources of ultraviolet radiation.

Using the special webbing sling in combination with chemicals

The materials used to manufacture textile products (PES, PA, PP) have different physical properties (e.g. grip, stability, abrasion characteristics) and different resistances to chemical influences.

Polyester is more resistant to many acids, while polyamide is more resistant to many alkalis. Polypropylene is strongly resistant both to many acids and to many alkalis.



WARNING

All materials may be destroyed or severely impaired in their load bearing capacity due to the effects of chemicals, depending on the concentration, temperature and exposure time.

When using chemicals, always contact us for our advice as the manufacturer. If webbing slings have come into contact with chemicals, they should be cleaned immediately with clear water or by other suitable means. Always observe the relevant occupational health and safety instructions here. Even harmless acid and caustic solutions may become concentrated by evaporation to the extent that they cause damage.

Using webbing slings in different temperature ranges

Webbing slings are suitable for use in the following temperature ranges:

Polyester/polyamide: -40° to +100°C

Polypropylene: -40° to +80° C.

These temperature ranges may vary depending on the chemical environment, so contact us for information in these cases. At temperatures below 0°C, only dry sling gear may be used.

Inspection and maintenance

Regular checks



CAUTION

In accordance with DGUV 100-500, sling gear must be inspected by a technical expert at intervals not exceeding one year. Depending on the conditions in which the sling gear is used, it may be necessary to inspect the gear at shorter intervals. This applies in particular to exceptionally frequent use, increased wear, corrosion or heat, or if an increased risk of damage is expected given operational experience. During the period of use, the user must perform visual inspections at regular intervals to detect any damage that could have an impact on long-term safe use of the webbing sling. These inspections must include the fittings, connecting elements and the labeling. If there is any doubt about usability or if the necessary labeling (label or tag) is missing, and after cases of damage or unusual events that could impair the load bearing capacity, the sling gear must be put out of service and then examined by a technical expert.

Examples of faults and damage that impair long-term safe use include: chafing on the surface, longitudinal or lateral cuts, incisions or chafing on the edges of the webbing sling, loose stitches or loops, chemical effects, damaged or deformed fittings, damaged abrasion protection sleeves or edge protection sleeves.

Never attempt to repair sling gear yourself!



CAUTION

Discard criteria for the special webbing sling

Webbing slings may not be used (discard criteria) in the event of:

- Damage to the webbing edges or the textile and numerous yarn breaks, e.g. more than 10% of the total number of yarns in the most damaged cross-section
- Damage to the bearing seams, or the sheathing or its stitching
- Deformation due to the effects of heat (friction, radiation)
- Damage due to the effects of aggressive substances
- Deformation, incipient cracks/tears, breaks or other damage to fittings
- Missing or illegible labeling

General hazard warnings



WARNING

When lifting loads with sling gear, there is a danger to persons under or next to the load. As a manufacturer, we must warn you, the user, that there are residual risks when handling sling gear, particularly due to an insufficiently secure connection between the sling gear and the load or due to swinging of the load during lifting, which poses a danger to the slinger. Falling loads are a danger to persons and goods.

As the user, make sure that your slingers and crane operators are trained with suitable training measures.

EC declaration of conformity

In accordance with EC Machinery Directive 2006/42/EC

We,



Dolezych GmbH & Co. KG
Hartmannstraße 8
44147 Dortmund, Germany,

hereby declare that the special webbing sling, which was developed for slinging loads, fulfills the following relevant provisions in its standard version:

EC Machinery Directive 2006/42/EC
DIN EN ISO 12100 Safety of machinery – General principles for design
DIN EN 1492-1 Textile slings – Safety

A handwritten signature in black ink, appearing to read 'Th. Schade', is written over a dotted line.

.....
Dipl. Ing. Thomas Schade
(authorized representative for this document)

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