

Operating instructions

DoQuick – Ratchet load binder



Imprint

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Manufacturer's declaration

Doleco USA (supported by ISO 9001 certification) hereby declares that the product described in these operating instructions (including the fittings, assembly, design, tests, etc.) complies with the relevant basic health and safety requirements of the relevant European standard EN 12195-2 and -3 and has therefore been manufactured in accordance with this standard.

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1 Foreword

1.1 About this guide

These operating instructions are part of the scope of delivery.

Always keep the operating instructions within reach.

Read the operating instructions carefully before first use and observe the information when using Doleco products.

Observe the safety instructions in the operating instructions to avoid personal injury and damage to property.

1.2 Symbols in the instructions

Warnings against personal injury



This safety warning symbol and the associated signal word indicate important information for avoiding hazards that can lead to injuries or even death. The meaning of this signal word is explained in more detail below.

DANGER!	Extremely dangerous situation. Failure to observe the safety instruction will result in death or serious injury.
WARNING!	Dangerous situation. Failure to observe the safety instruction may result in death or serious injury.
CAUTION!	Dangerous situation. Failure to observe the safety instruction may result in minor injuries.

Property damage warnings



This symbol indicates important instructions to avoid damage to the product or other objects.

Other information



This symbol indicates other helpful information. This information is additionally marked with a frame.

1.3 Limitation of liability

Doleco USA accepts no liability for damage caused by:

- Non-compliance with these operating instructions
- Unintended use
- Use of the product by untrained personnel
- Use of non-approved accessories / fitting parts
- Unauthorized modifications

1.4 Special regulations and guidelines

For the safe handling of the product, special reference is made to the following applicable regulations and technical rules:

- FMCSA Regulations – Part 393
- WSTDA T-6 – Load binders used with chain tie downs
- ASME B30
- EN 12195-1:2011-06 – Load restraining on road vehicles - Safety - Part 1: Calculation of securing forces
- EN 12195-3:2001-07 – Load restraint assemblies on road vehicles - Safety - Part 3: Lashing chains
- VDI 2700 ff. – load securing on road vehicles
- Daimler loading guidelines – Load securing 9.5

If necessary, special regulations beyond this must be observed, e.g. for the transport of dangerous goods.

2 Safety instructions

2.1 Intended use

The product is used to secure loads for transport and may only be used:

- By authorized and instructed persons
- In compliance with the applicable regulations.

It is expressly forbidden to:

- Modify the product
- Repair the product by non-specialist personnel
- Use the product for lifting loads and/or persons.

This is a professional product intended for commercial users.

2.2 General safety instructions

The general use of lashing equipment and tensioning elements poses the following hazards for the user:

- Fall due to loss of balance, especially when handling heavy load securing equipment.
- Injuries caused by crushing and shearing when tensioning the tie down.
- Hazards due to the use of unsuitable lashing equipment combinations.

In addition, the hazard information in WSTDA T-6 and the annex to EN 12195-3 must be observed.

For safe handling of the product, the following instructions must be observed:

- Observe the maximum tensile force! The product must never be loaded beyond the working load limit (WLL)/Lashing capacity (LC).
- Only components of the same nominal size and quality class should be used.
- No mechanical aids (e.g. tubes or rods) may be placed on the lever to increase the manual preload force.
- The product must not be used for lifting.
- The product must not be used if it is defective. (Observe discard criteria on p. 11).
- The product may only be attached to the fittings or superstructure parts intended for this purpose.

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- The product must not be used if the labelling is missing or no longer legible.
- Do not subject clamping and connecting elements to bending stress.
- Observe the operating temperature ranges of the round steel chains.
- Avoid contact with chemicals.
- The load binder must not be driven over.
- Do not place any loads on the load binder.
- Do not pull the load binder over floors or rough surfaces.
- Re-tension the tie down regularly. Vibrations, impact loads and settling processes can reduce the pre-tensioning force applied. This also applies if the secured load is not moved.
- Before opening the ratchet binder, check whether the stability of the load on the loading area is guaranteed even without tie down and that the unloading persons are not endangered by the load falling or tipping over. If this is not the case or if there is any doubt about this, the load must be secured before the tie down is opened (e.g. with slings). The lashing equipment may only be removed once it has been ensured that there are no hazards.
- Maintain the ratchet binder regularly (see chapter 6 on p. 14).
- Due to different properties (e.g. change in length under load), all tie downs used to lash a load must have the same properties. The lashing strands can also consist of combined tie downs (chain and webbing).
- Work gloves must always be worn when working with ratchet binders and tie downs. There is a risk of crushing and injury due to the mechanically moving components!
- Observe the instructions for securing against unscrewing (see page 9).

3 Product description

3.1 Parts/components

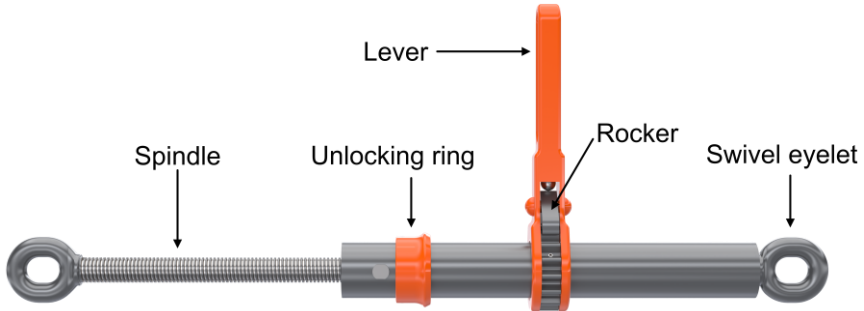


Fig. 1: Components of the DoQuick ratchet load binder

3.2 Product features

Feature	Do Quick
Length retracted [inch]	approx. 16.5
Length extended [inch]	approx. 26.5
Clamping distance [inch]	approx. 10.3
Lever length [inch]	approx. 8.23
Max. Lashing Capacity LC [daN]	10,000
Working load limit (WLL) [lbs]	22,000
Minimum breaking force (MBF) [kN]	212
Suitable for lashing chains of the nominal size/grade (1 or 2 parted)	8-10 10-8 10-10 13-8
Suitable for DoNova® lashing chains of type	25/8
Weight [lbs] (without hooks)	approx. 7,7

3.3 Labelling on the product

Each Do*Quick* ratchet binder has a labelling plate and a test date plate. The information on these labels depends on the overall system in which the Do*Quick* ratchet binder is used.

In general, the following information is included:

- Manufacturer's label
- Working load limit (WLL)
- Preload force (STF)
- Standard hand force (SHF)
- Valid standard
- Traceability code
- Date of the next test

3.4 Application-oriented product selection

The following points must be observed for the selection of a suitable sling for the application:

- Required working load limit (WLL)
- Required lashing capacity (LC)
- Type of load to be secured
- Type of use

The correct choice of lashing equipment is determined on the one hand by the type, size, shape and weight of the load and on the other hand by the transport environment and the intended type of use (see EN 12195).

The number of lashing chains required should be calculated in accordance with EN 12195-1 or VDI 2700 Sheet 2. Alternatively, our "Doleco Simple Method© Direct Lashing" or FMCSA regulations part 393 can be used.

3.5 Quick-release mechanism

The quick-release mechanism of the Do*Quick* ratchet load binder allows the ratchet load binder to be quickly adjusted to the required length.

The operation of the quick-release mechanism is described in more detail on page 9.

3.6 Unscrewing lock

The Do*Quick* ratchet load binder has an innovative anti-unscrewing device designed to prevent damage to the thread of the spindle.

The function of the unscrewing lock is described in more detail on page 9.

4 Testing and maintenance

4.1 Initial commissioning

Before using the product for the first time, make sure that:

- All components correspond to the order and are undamaged
- The certificate issued by the manufacturer and operating instructions are present,
- Identification and dimensions of the product correspond to the specifications,
- Inspection periods and the authorized persons for inspections have been determined
- A visual and functional inspection is carried out and documented.

If one of these criteria is not met, the product must not be used.

4.2 Before each use

Before any further commissioning of the product, it must be ensured that:

- The spindle moves smoothly in the unscrewing area,
- The swivel eyelet is easy to move,
- The marking on the product is present and legible,
- The product has no damage or defects,
- The product is not ready for discarding (see page 11).

If one of these criteria is not met, the product must not be used.

4.3 Regular testing

This product is a tensioning element. It must therefore be inspected at intervals of no longer than one year. The inspection must be carried out by a competent person and must be documented.

If defects are found in the product that impair safety, the product must be withdrawn from further use immediately.

4.4 Discarding criteria

The product must not be further used if one or more of the following discarding criteria are met:

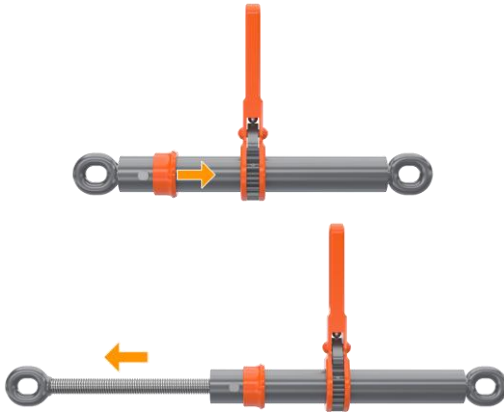
- Missing or illegible marking
- Deformations
- Tears
- Strong signs of wear
- Signs of corrosion
- Faulty function of the quick-release mechanism
- Missing or destroyed unlocking ring
- No longer rotatable swivel eyelet

5 Instructions for use

5.1 Quick-release mechanism

The Do*Quick* ratchet load binder has an innovative quick-clamping mechanism that avoids time-consuming unscrewing of the spindle.

To adjust the spindle length, the following steps must be carried out.



1. Pull and hold the unlocking ring in the direction of the lever. Do not pull on the spindle at the same time!
2. Pull out the spindle to the desired length or to the stop.



The quick-release mechanism cannot be unlocked if the ratchet binder is under tension!

This may also be the case if the spindle is screwed in tightly. In this case the spindle must be unscrewed slightly.

The thread grips even when the spindle is pulled out as far as it will go. This means that the Do*Quick* ratchet load binder can be used immediately for lashing.



3. Reinsert the spindle if necessary.
The unlocking ring **does not need to** be actuated for this.

5.2 Unscrewing lock

The Do*Quick* ratchet load binder has an innovative anti-unscrewing device that prevents damage to the thread of the spindle.

If the fully extended or unscrewed spindle is unscrewed further, the thread is "unscrewed". The mechanism means that the spindle cannot be unscrewed any further and simply continues to turn.

To re-tension the ratchet load binder, the spindle must be turned in the other direction. The tensioning principle works again immediately.

5.3 Preparing the ratchet load binder

To prepare the ratchet load binder for use, the spindle must be pulled out of the housing by hand as far as possible. The quick-release mechanism can be used for this.

5.4 Tensioning the ratchet load binder



CAUTION!

Risk of bruising hands and fingers!

Skin or fingers can be crushed when operating the tensioning device.

- Wear protective gloves.

To tension the ratchet load binder, the following steps must be carried out:

1. Adjust the rocker so that the ratchet load binder can be tensioned.
2. Tension the ratchet load binder by operating the lever.

The swivel eye must always be connected to the longer strand of the lashing chain to optimize the pre-tensioning force. On the spindle side, there should only be a short chain length of 3 to 8 chain links between the ratchet load binder and the lashing point. This is the best way to avoid twisting in the chain.

5.5 Relaxing the ratchet load binder



WARNING!

Risk of injury due to falling load!

The load may slip during the journey. If the load securing device is released, the load may fall and cause serious injury.

- Check that the load is secure.
- Support unsecure loads.

To release the ratchet load binder, the following steps must be carried out:

1. Adjust the rocker so that the ratchet load binder can be released.
2. Release the ratchet load binder by operating the lever until the lashing hooks can be removed from the lashing eyes.

6 Storage and care

6.1 Storage

Before storing the product, inspect it for any damage that may have occurred during use.

Do not store damaged products.

Store the product on a shelf

- In a clean, dry and well-ventilated environment,
- Away from heat sources.

During storage, care must be taken to ensure that the safety of the product is not impaired by environmental influences (e.g. chemicals).

6.2 Regular maintenance

Greasing/oiling the ratchet load binder

The tensioning elements must be lubricated with grease/oil at regular intervals to ensure that the spindle runs smoothly.

The following steps must be carried out to grease/oil the tensioning element

- Pull out the threaded spindle as far as it will go.
- Coat the threaded spindle with grease/oil.
- Push the threaded spindle back in completely.

OPTIONAL: In case of heavy contamination of the manual release mechanism



NOTE! The steps described below may only be carried out by qualified personnel or specialist workshops. Improper execution may cause irreparable damage to the DoQuick!

If the operation of the release ring is impaired due to heavy contamination, the following steps can be carried out:

- Remove **one** of the two screws next to the manual release mechanism.
IMPORTANT! Never remove both screws at the same time!
- Clean the mechanism through the opening using cleaner or penetrating oil.
- Afterwards, lubricate with grease/oil and reinsert the screw.

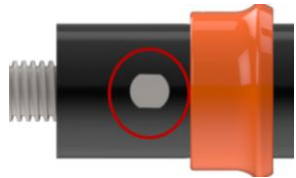


Fig. 2: Position of maintenance screw

7 Disposal instructions

Doleco DoQuick ratchet load binders consist of steel and plastic components.

Once the DoQuick ratchet load binders have reached the end of their service life, they must be disposed of properly and in accordance with the local legal requirements.

