

Original 270900\_00 | 09.2021

## **Operating instructions**

# **EDER Power Climber**

Climbing aid for ascending/descending a rope Type EPC 130 Type EPC 240



Schweigerstraße 6 – 38302 Wolfenbüttel - Germany



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## About this guide

### Validity

These instructions apply to the

EPC 130 and EPC 240 versions of the EDER Power Climber. In addition to these instructions, the separate instructions for the respective combustion engine apply.

The instructions are intended for trained industrial climbers, arborists and height rescuers.

The instructions contain important information on how to safely commission and use the EDER Power Climber, as well as on the risks and dangers involved in using this device.

## DANGER

#### Read and follow the instructions in this manual

This manual contains important information to prevent fire, property damage, injury and death.

### Disclaimer

The EDER Power Climber is only an ascent/descent aid for climbing. The user must ensure a fully independent belay at all times. Eder Maschinenbau GmbH excludes all liability for damage, injury or death.

### Warranty

Attachments are covered by the statutory warranty period. The seller must be notified immediately of any defects that can be proven to be due to material or assembly errors. Proof of purchase of the attachment must be provided by presenting the invoice and receipt when making a claim under the warranty. The warranty is excluded with regard to the parts concerned if the defects are caused by natural wear and tear, temperature, weather conditions as well as defects resulting from faulty connection, installation, operation, lubrication or force. Furthermore, no warranty is given for damage caused by unsuitable improper use of the machine, e.g. improper modifications or repair work carried out by the owner or third parties under his or her own responsibility, or in the case of deliberate machine overload.

### Guarantee



The warranty period shall be 12 months from the date of delivery for commercial or professional use or application. The statutory warranty remains unaffected. Warranty claims must always be proven by the buyer by means of the original purchase receipt. A copy of this is to be enclosed with the warranty application. The purchaser's address and serial number must be clearly identifiable. Any defects occurring within the warranty period due to material or manufacturing faults will be remedied by repair if they have occurred despite proper operation and care of the machine.

The manufacturer does not accept any warranty/guarantee for:

- Parts which are subject to natural wear and tear
- Non-compliance with the operating instructions and insufficient or incorrect care
- The consequences of improper maintenance and servicing
- Damage from improper handling and incorrect operation

### Presentation of the warning notes

## SIGNAL WORD

#### Type and source of the danger!

Consequences

- Danger prevention
- The signal word indicates the severity of the danger.
- The paragraph "Type and source of danger" indicates the type or source of danger.
- The paragraph "Consequences" describes the possible consequences of not observing the warning.
- The paragraph "Danger prevention" indicates how to avoid the danger. It is imperative that you comply with these measures for averting danger!

The signal words have the following meaning:

Warning word	Meaning
DANGER!	Indicates a hazard that will certainly lead to death or serious injury if you do not avoid the danger.



Warning word	Meaning
WARNING!	Indicates a hazard that can lead to death or serious injury if you do not avoid the danger.
CAUTION!	Indicates a hazard that can lead to minor or moderate injury if you do not avoid the danger.
ATTENTION!	Indicates possible damage to property. The environment, material assets or the plant itself can be damaged if you do not avoid the danger.

## Symbols used in this manual and on the device

Symbol	Meaning
i	If this information is not observed, this can lead to deterioration in the operating process.
>	Instruction for action: Describes actions that must be carried out.
	The operating instructions contain important information for safe operation. Be sure to read them before operating the engine.
	Exhaust gases contain carbon monoxide, a colourless, odourless and lethal gas. Do not run the engine in a closed room.



vmbol	Meaning
	Petrol is extremely flammable and can explode. Keep away from open flames or other sources of ignition.
<u>∧</u>	The engine, pulley and brake unit can become very hot during normal operation. Take care not to touch hot parts of the device.
	Warning of danger of being drawn into rotating parts.
	Wear ear protection

## **Safety instructions**

The EDER Power Climber has been manufactured in accordance with the generally recognized rules of technology. Nevertheless, there is a risk of personal injury and damage to property if you do not observe the following basic safety instructions and the warnings preceding instructions in this manual.

- Read this manual thoroughly and completely before operating the EDER Power Climber.
- > Keep the manual in a legible condition.
- > Make sure that the manual is always accessible to all users.
- > Always pass on the EDER Power Climber to third parties together with this manual.

### Intended use

You may only use the EDER Power Climber for the activities described in these instructions. You must always respect the performance limits of the device.

ΕN



The EDER Power Climber EPC 130 is designed for the transport of one user with equipment and materials if necessary. The EDER Power Climber EPC 130 may only be controlled by one person. Total load on the EDER Power Climber EPC 130 must not exceed 130kg.

The EDER Power Climber EPC 240 is designed for the transport of one user with equipment and materials if necessary, as well as for carrying one additional person, e.g. in rescue operations. The EDER Power Climber EPC 240 may only be controlled by one person. Total load on the EDER Power Climber EPC 240 must not exceed 240kg.

When used for transporting persons, with the device and the operator at a fixed point above the person to be transported, there must be a secure and permanent visual and voice contact between the person to be transported and the operator.

Intended use also implies that you have read and understood this manual in its entirety and in particular the chapter "Safety instructions".

#### Improper use

Any use not in accordance with the intended use is not permitted. The following is considered improper use:

- · removing or modifying safety devices,
- using the EDER Power Climber in any other way than described in the chapter "Intended use",
- performing cleaning, maintenance and repair measures other than those listed in the chapters Cleaning and Maintenance,
- using the attachment under operating conditions that differ from those described in this manual.
- The EDER Power Climber is not suitable for EEX protected areas. If the device is nevertheless to be used in an EEX protected area, a risk assessment must be carried out by the operator.

If the device is not used as intended, all warranty claims will become void.

The manufacturer is not liable for damage to the device and for personal injury resulting from improper use.

### Qualification of the personnel

The EDER Power Climber may only be used by persons

• who have familiarised themselves with the device and the associated dangers on the basis of these instructions.



 who have received appropriate training in working at height or in height rescue.

Persons who use the EDER Power Climber must not be under the influence of alcohol, other drugs or medicines that affect their ability to react, nor must they be tired, ill or irritable.

Persons under 18 years of age must not operate the device. However, it is permissible to assign such activities to persons over 16 years of age, provided that this is necessary to achieve a training objective and that protection is guaranteed by the supervision of an expert.

### Points to observe

#### **General safety instructions**

- > Always follow the instructions in this manual to avoid hazards and prevent damage.
- > Observe the relevant accident prevention regulations and other generally recognised safety and occupational health rules.
- > Only carry out maintenance and cleaning work and transport the device with the engine switched off.
- > Operate the device exclusively with the protective equipment fitted or provided by the manufacturer.
- > If you have long hair, wear a hairnet when working with the device.
- > Do not smoke while refuelling or while working with the device.
- > It is imperative that the instructions for use of all equipment used are followed.

### Safety instructions for the workplace

- > Do not use the EDER Power Climber in an explosive environment.
- > Ensure adequate lighting at the workplace.
- > Only use the EDER Power Climber with combustion engine in wellventilated environments and not in closed rooms. Exhaust fumes contain toxic carbon monoxide.
- > Do not leave the device permanently in the rain.
- Make sure that neither the rope nor the personal protection equipment rubs against rough materials or sharp edges or objects.
- Only use the device in good weather conditions. Do not use the EDER Power Climber in strong wind, heavy rain, poor visibility or thunderstorms.

### Behaviour in an emergency

If, for example, malfunctions or dangerous situations pose an immediate risk of injury to persons or damage to the device:



- > Switch off the EDER Power Climber.
- > Only release yourself from the EDER Power Climber when you are secured through another belay system.
- > Have the malfunctions eliminated by an authorised specialist dealer.



### Safety devices

The EDER Power Climber may only be used with the protective and safety equipment (e.g. cover) provided for the intended use. Protective and safety equipment must never be disabled and must be cleaned if necessary.

### Personal protective equipment

- > Always wear the following personal protective equipment when operating the machine:
  - Tight-fitting clothing, a hair net if necessary.
  - Helmet
  - Hearing protection
  - Mobile fall arrester
  - Climbing harness with appropriate carabiners



The personal protective equipment must comply with the applicable accident prevention regulations.

Further protective equipment may be necessary depending on the activities to be carried out.



## **Design and function**



EN















### Transport

## CAUTION

#### Hot components

The combustion engine becomes hot during operation. During transport, take care not to touch the combustion engine while it is hot.

## ATTENTION

#### Danger from leaking fuel!

If the fuel tank inlet is not properly closed, fuel may leak and pollute the environment.

- > Before transportation, check whether the fuel tank inlet is correctly closed.
- > When transporting the device on vehicles, secure it against tipping over.

### Transport damage

Visible transport damage can be recognized by packaging damage or by scratched and deformed parts on the device.

- > Be sure to make a note of the damage on the delivery note: both on the copy you receive and on the one that you must sign.
- > Make sure that the deliverer (driver) countersigns.

If the deliverer refuses to confirm the transport damage, you should refuse to accept the delivery and inform us immediately. A claim in retrospect, without a direct note on the delivery note, will not be accepted either by the carrier or by the transport insurer.

If you suspect latent transport damage:

- Report concealed transport damage within two days at the latest, which means that you must have checked your delivered goods within this period. Reporting damage after this time is usually not accepted.
- > Make a note on the shipping documents in any case: "Goods are accepted subject to concealed transport damage".



Insurance companies of carriers often react very suspiciously and refuse to provide compensation. Therefore, try to prove the damage clearly (send a photo if possible).

### **Commissioning and operation**

Before starting the EDER Power Climber, make sure that the working conditions are safe. Check that

- > the ropes or other equipment do not show any damage or excessive wear, otherwise replace the equipment accordingly.
- > the last maintenance of the EDER Power Climber took place less than one year ago.
- > the handles are clean and dry
- > both the fuel tank and the device are located outside of flammable environments. Note that closed, empty fuel tanks may contain explosive vapours.



### Inserting the rope

### WARNING

#### Rope type

Only the official Eder climbing rope may be used for the EDER Power Climber (see name plate). This rope is certified type A according to EN 1891. Other rope types can lead to increased wear, spinning or tearing.

#### Damage to the rope

Wear on the rope is normal. Therefore, the rope must be replaced from time to time (see section Rope wear). However, if the sheath is damaged, the rope must be replaced immediately.

Before each use, check the rope for possible damage.

#### Rope end knot

Make sure that the rope has a suitable rope end knot so that you cannot go over the end of the rope when descending. The rope end knot must be larger than the rope guide.

- > Ensure that the climbing rope is securely anchored.
- > Open the cover by pulling up the release
- > Pass the rope as a loop through the rope guide.
- > Place the rope loop around the rope sheave.
- > Pull on the end of the rope to push the rope into the teeth.
- > Close the cover



## ATTENTION

Closing the cover



## ATTENTION

The cover guides the rope around the rope sheave and prevents the rope from slipping and thus being damaged by the pulley. Make sure that the cover is properly engaged.

#### Damage to the pulley

A dirty or sandy rope increases the friction between the sheave and the rope, resulting in increased wear or damage to the sheave and the rope.

## CAUTION

#### Reaching into the rope entry area

Reaching into the rope entry area can cause injury.

Make sure that the cover is closed and do not reach into the rope entry area.

### Assembly and use

Check the functional interaction of your equipment elements with this device. The equipment used must comply with the standard applicable in your country.

Observe the applicable work safety regulations, directives on industrial safety and health, and legislation in your country.

The possible configurations for using the EDER Power Climber are shown below. Before ascending or descending with the device, familiarise yourself with the local situation and check whether it is possible to set it up and use it in accordance with the applicable safety standards.





Belay rope type A according to EN 1891 - Observe the operating instructions of the mobile fall arrester and the maximum permissible weight for the energy absorber used.



#### Assembly with belay rope and additional load



Belay rope type A according to EN 1891 - Observe the operating instructions of the mobile fall arrester and the maximum permissible weight for the energy absorber used.





Belay rope type A according to EN 1891 - Observe the operating instructions of the mobile fall arrester and the maximum permissible weight for the energy absorber used.

Visual contact and communication must be possible at all times.

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Belay rope type A according to EN 1891 - Observe the operating instructions of the mobile fall arrester and the maximum permissible weight for the energy absorber used.

Visual contact and communication must be possible at all times.

Ensure that a suitable pulley is used.





### Assembly for rescuing - only permissible for model EPC 240

Belay rope type A according to EN 1891 - Observe the operating instructions for the mobile fall arrester and the energy absorber, as well as the maximum permissible weight.





The single rope system is only permitted in the SKT field, i.e. in situations that refer to section 3.4.2 of the German Directive on Industrial Safety and Health (BetrSichV) (e.g. tree climbing). The maximum permissible load for the single-rope system is 130kg.

Before use, check whether the directive on industrial safety and health valid in your country or the applicable laws and regulations permit a single-rope system.

Use of the Eder Power Climber without a belay rope is always at your own risk and Eder Maschinenbau GmbH accepts no liability in this case.



## WARNING

#### Additional rope inspection and frequent replacement

If no belay rope is used, increased attention must be paid to the ascent rope:

- Check the rope with the greatest possible attention for dirt and heavy abrasion before each use. Replace the rope even if it is only slightly worn.
- If the rope slips, i.e. the sheave rotates but the device does not ascend on the rope, the motor must be switched off immediately.



The rope will wear out within a few seconds if it slips and can be heavily damaged, or even break.

#### Lifting operations

When lifting loads, follow the current work safety regulations in your country.

Basic safety rules when lifting are:

- > Staying under suspended loads is prohibited
- > Keep your distance from the load
- > Do not pull at an angle to the load
- > Always keep an eye on the load
- > Make sure that communication is ensured
- The maximum permissible load (240kg) must not be exceeded.
  EPC 130: 130kg
  EPC 240: 240kg

### Starting the engine

See the separate instruction manual for the engine.

### Operation

To climb the rope, the operator hooks into the EDER Power Climber's carabiner loop with his carabiner on the climbing harness or with a webbing sling.



## WARNING

#### Independent belay system

The EDER Power Climber is only an ascent/descent aid. You must be connected to a belay system at all times. For this, use a mobile fall arrester. We recommend the Petzl ASAP LOCK.

Follow the operating instructions for the mobile fall arrester.

For tree climbing only, the belay rope can be dispensed with under certain circumstances. In this case, observe the regulations that apply in your country.

By pressing the ascent lever, the engine is accelerated and the EDER Power Climber moves upwards on the rope. To stop, release the lever again. Be careful not to accelerate too much.

To descend, operate the descent lever and the EDER Power Climber moves downwards on the rope.

Make sure that the unloaded rope can run away downwards at any time.

Before each use, check that the device can move up and down freely on the rope and cannot be blocked by knots or obstacles.

Make sure that the anchor point for both the ascent rope and the belay rope is sufficiently firm. Make sure that the device cannot drive over the anchor point (e.g. a branch) in any situation. Set an end point (knot or rope clamp) if necessary.





Before each use, check the function of the brake by moving up and down one metre.

- > If the device cannot hold the weight when stationary, it must not be used and must be sent in for inspection.
- > If the device does not descend despite operating the descent lever, it must not be used and must be sent in for inspection.

## WARNING

#### Rope slipping

- Should the rope slip and not be conveyed by the rope sheave, stop accelerating!
- > Switch off the motor and stop the climbing process immediately. Replace the rope.

The rope will wear out within a few seconds if it slips and can be heavily damaged, or even break.

#### Burns

• During operation the engine becomes hot, especially at the exhaust.



## WARNING

- When the device descends, the energy is converted into heat. This can cause the brake housing to become hot.
- Friction occurs on the rope sheave when the rope is conveyed. The pulley can become hot.

Allow the device to cool down before touching it in the areas mentioned.

## **Cleaning and maintenance**

## WARNING

# Danger during maintenance, repair and cleaning work with the drive motor running!

This may result in injury.

Before maintenance and cleaning work, switch off the drive motor and wait until it is no longer hot.

Check before each operation:

- > Sufficient fuel in the tank
- > Clean air filter
- > Smooth-running levers
- > Function of the off switch on the engine
- > Visual inspection for dirt or damage

To work safely, you must clean the device after each use.

- > Remove possible rope abrasion from the device
- > Use a dry or slightly damp cloth and, if necessary, a commercially available cleaning agent for the exterior surfaces.
- > Do not use any grease-dissolving, caustic or aggressive cleaning agents



Maintenance work on the engine can be carried out in accordance with the engine operating instructions.

Any further work must be carried out by a certified workshop.

### Rope wear

The rope is subject to natural wear during operation. The rope is suitable for up to 500 cycles with a load of up to 240 kg. One cycle means moving up and down again in the respective rope section.

However, the rope may need to be replaced earlier. Clean the rope after each use to avoid increased wear. If there is damage to the rope sheath or after a fall to the rope core, the rope must be replaced.

### Maintenance and faults

The EDER Power Climber must be inspected annually by a certified workshop. If the inspection sticker next to the name plate has expired, the EDER Power Climber must not be used.

The device is tested for accident prevention ex works. Enter the month of purchase of the device on the inspection sticker in accordance with the invoice.

In the event of a fault, the device must be checked by a certified workshop.

The following table lists possible errors, causes and their elimination.

Fault	Cause	Elimination
Motor does not start	Air filter clogged	Clean/replace air filter
	No ignition spark	Clean/replace spark plug
Rope slips	Worn pulley	Certified workshop
	Rope worn or showing signs of wear	Replace rope
Brake does not work correctly or	Worn brake disc	Certified workshop



Fault	Cause	Elimination
descent speed is too high		
Descent not possible	Brake lever jammed	Certified workshop

## Decommissioning and disposal

If the EDER Power Climber is no longer fit for use and is to be scrapped, you must deactivate and dismantle it, i.e. you must bring the device into a state in which it can no longer be used for the purposes for which it was designed.



# Technical data

EPC 130

Technical data	Value	Note
Rope	Eder climbing rope	Other ropes not
		permitted
	EN 1891 Type A	Type: ECR (Eder
	12.9mm	Climbing rope)
Weight	10.9 kg	Without 4-stroke
		fuel
Max. permissible load	130kg	Max. 1 person
Ascent speed	0.5m/s (130kg)	
Descent speed	0.3m/s	
Dimensions	30x27x36cm	
Tank volume	0.63	
Engine capacity	47.9 cm <sup>3</sup>	
Fuel	4-stroke fuel	
Engine oil	SAE 10W-30	Alternative oil of
	API SJ	the same/higher
		quality
Noise level	97 dBA	
Operating temperature	-20°C – +40°C	

### EPC 240

Technical data	Value	Note
Rope	Eder climbing rope	Other ropes not
		permitted
	EN 1891 Type A	Type: ECR (Eder
	12.9mm	Climbing rope)
Weight	11.2 kg	Without 2-stroke
		special fuel
Max. permissible load	240kg or max. 2	>130kg or
	persons	> 1 person
		independent
		belay system
Ascent speed	Max. 0.4m/s (240kg)	
	Max. 0.6m/s (130kg)	
Descent speed	Max. 0.3m/s	
Dimensions	30x28x39cm	
Tank volume	1.1	
Engine capacity	53.2 cm <sup>3</sup>	
Fuel	2-stroke special fuel	
Noise level	98 dBA	
Operating temperature	-20°C – +40°C	



## **Declaration of conformity**

The Eder Mechanical Engineering GmbH manufacturer: Schweigerstraße 6 38302 Wolfenbüttel Germany

Herewith declares that the machine designated below complies with the relevant essential safety and health requirements of the EC Machinery Directive 2006/42/EC due to its design and construction.

Main designation:	EDER EDER P	ower Climber	
Туре:	EPC 130	Serial number: EPC-130-01000	and following
	EPC 240	Serial number: EPC-240-01000	and following

The following standards were used to implement the safety and health requirements specified in the EC directives:

DIN EN ISO 12100	<b>DIN EN 354</b>
DIN EN 1496	DIN EN 1891
DIN EN 341	DIN EN 349

Internal measures have been taken to ensure that the serial production devices always meet the requirements of the current EC directives and the standards applied.

Identification number of the notified body: DEKRA 0158

Authorized person for the technical documentation: Michael Pögel

Wolfenbüttel, 07.09.2021

V. Malun

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