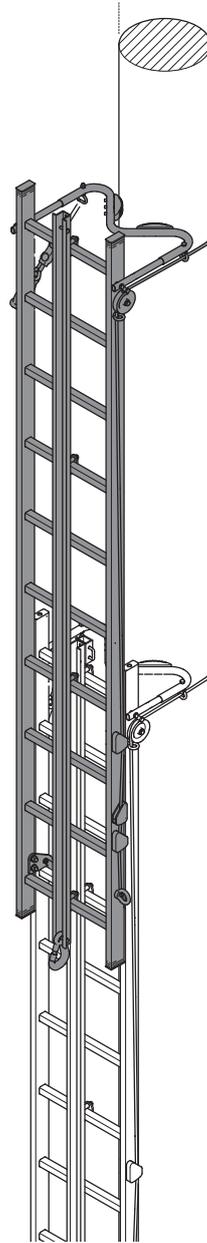




ZARGES



Z600

Nº

29860

en **Pole Access Ladder**



english..... 3



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1. Information on this manual

1.1 Important information on this manual

The instructions in this manual must be read, understood and complied with to ensure correct and safe erection and operation of the pole access ladders. Failure to comply with these instructions may lead to fatal accidents, injury or damage to property.

This manual must be kept at the place of assembly and operation and must be available to personnel at all times. It must be read, understood and complied with by all personnel working on and with the pole access ladder. The manual must be included with the equipment if the pole access ladder is passed on to a new owner. In addition to this manual, the following documents / regulations must be observed:

- the country-specific accident-prevention regulations,
- the relevant practices for safe and correct use of ladders,
- safety regulations for the use of electrical equipment where there is increased risk.

1.2 Explanation of symbols

The following symbols and signal words are used in this manual:



DANGER

This symbol and the word "Danger" draw attention to imminent danger to the health and safety of personnel. Disregarding these warnings will result in serious or fatal injury.



WARNING

This symbol and the word "Warning" draw attention to possibly hazardous situations endangering the health and safety of personnel. Disregarding these warnings may lead to injury or even fatal injury.

NOTE

The word "Note" warns of the danger of damage to property or the environment. Failure to observe these warnings may lead to damage to the product, objects around it or the environment.

Where the exact source of the danger can be localised, the following symbols are used together with the signal words listed above:



This symbol appears next to activities where there is a danger of falling, resulting in serious or fatal injury.



This symbol appears next to activities where there is a danger of serious or fatal injury as a result of electric shocks.

1.3 Notes for personnel

The operator must ensure that pole access ladders are only used by experienced personnel (e.g. antenna installation technicians, maintenance teams etc.). Such persons must be examined by an occupational health physician to verify their ability to work at heights and must provide proof that they are familiar with and have received instruction on the use of the fall arrester system.

Persons under the influence of drugs, alcohol or medication reducing reaction times must not be allowed to work on or with pole access ladders. Trainees and apprentices may only erect or use the pole access ladder under supervision or when authorised to do so by experienced personnel.

Assembly and operating personnel may perform servicing work (cleaning etc.) if authorised to do so by the operator. Maintenance personnel must be authorised in accordance with the regulations which apply in the country in question.

2. Safety instructions

2.1 Intended use

The pole access ladder is intended solely for the following applications:

- as a climbing aid to gain access to a pole in order to perform work at a specific maximum height. The maximum height is dependent on the scope of the order (see order confirmation)
- permissible pole diameter 140 mm - 1000 mm.
- vertical set-up angle (at 90° to the horizontal plane).
- occasional outdoor use.
- use in max. wind strengths of 12 m/s (wind strength 6 on the Beaufort scale).
- work which does not require the use of heavy construction or working materials.

2.2 Improper use

Any use not described in Section 2.1 qualifies as improper use. The operator bears sole liability for any damage arising from such use. In particular, improper use includes the following:

- permanent, stationary use.
- use on chimneys, walls, trees etc.
- use at more than the specified maximum heights (see the order confirmation).
- use in combination with ladder elements which are not included in the scope of delivery.
- use with an oblique set-up angle (not at 90° to the horizontal plane).
- horizontal use (e.g. to span or cross ditches).
- placing the ladder on boards used to bridge cavities (e.g. ditches, fissures etc.).
- attachment of lifting tackle, hoists etc. to the pole access ladder.
- use in winds of strengths in excess of 12 m/s, storms and thunderstorms.
- unauthorised modifications or repairs to the pole access ladder.
- use of non-original spare parts.
- climbing the pole access ladder without a fall arrester system / fall protection device.

2.3 General safety instructions

The pole access ladders are designed and built to comply with the technological state-of-the-art and the recognised rules of safety engineering and based on the following standards: DIN EN 353 CE0121, DIN 18799-1, DIN EN ISO 14122-4, DIN EN 131.

Nevertheless, danger to the health and safety of personnel and the risk of damage to property cannot be completely ruled out. Follow these basic rules to prevent dangerous situations arising:

- > Always wear protective clothing (safety helmet, safety gloves, safety shoes) when working on or with the pole access ladder.
- > Never leave the pole access ladder unattended in places accessible to the public. Cordon off the area immediately surrounding the pole access ladder. Take appropriate measures to prevent unauthorised use of the pole access ladder.
- > When climbing the pole access ladder, always wear a safety harness in accordance with DIN EN 361 and use a ZAST-OPTIFLEX-R4 safety slide mechanism [Order No. 47588].
- > Read the operating instructions for the ZAST-OPTIFLEX-R4 safety slide mechanism before commencing work.
- > Never load the ladder on only one side. Always distribute loads evenly on the ladder.

2.4 Safety instructions for working with electrical equipment

The following safety instructions must be observed when:

- you are working with electrical equipment on the pole access ladder,
- the pole access ladder is used in the vicinity of electrical units,
- the pole access ladder is used in the vicinity of overhead power lines.



DANGER

DANGER OF ELECTRIC SHOCKS WHEN WORKING WITH ELECTRICAL EQUIPMENT ON THE POLE ACCESS LADDER!

Electrical equipment may only be used on the pole access ladder under the following conditions:

- > With protective low voltage (48 V).
- > With protective insulation (separation transformer).
- > If the equipment is connected via a ground fault circuit interrupter with a residual current of max. 30 mA.



DANGER

DANGER OF ELECTRIC SHOCKS WHEN WORKING IN THE VICINITY OF CURRENT-BEARING UNITS!

Pole access ladders may only be used in the vicinity of such units if the following conditions are met:

- > The unit must be disconnected and secured against being switched back on.
- > The section of the unit in question must be de-energised.
- > The section of the unit must be earthed by means of an earthing strap.
- > The section of the unit must be insulated against any adjacent current-bearing components.



DANGER

DANGER OF ELECTRIC SHOCKS WHEN WORKING IN THE VICINITY OF OVERHEAD POWER LINES!

- > When working near overhead power lines, observe the safety clearances listed in the table below.
- > When calculating safety clearances, allow for the swinging radius of power lines and the movement radius of working personnel. The movement radius includes any objects held by personnel.
- > If it is not possible to comply with the safety clearances, have the operating authority disconnect the power lines and secure them against being switched back on.

Rated voltage (V)	Safety clearance (m)
< 1000 V	1.0 m
1 kV – 110 kV	3.0 m
110 kV – 220 kV	4.0 m
220 kV – 380 kV or if the rated voltage is not known	5.0 m

3. Technical description

- 3.1 Scope of delivery**
- The ladders are of customised design, and the parts delivered vary according to each order. However, as a minimum, each ladder comprises a bottom section, middle section and top section.
 - Before starting assembly of the product, check that all components listed in the order confirmation and on the delivery note have been supplied and are in perfect condition. Use only original parts in perfect condition to assemble the product. Contact the manufacturer if any parts are missing.

- 3.2 Identification**
- For identification of the model supplied, see the type plate. The type plates are attached to the ladder stiles.

3.3 Technical data The maximum height and weight vary according to the scope of the order.

- See the order confirmation for customer-specific technical data.
- The following technical data apply to all products:

	Bottom section	Middle section	Top section
Permissible load per ladder	150 kg	150 kg	150 kg
Ladder length	3.52 m	2.85 m	2.80 m
Outside width	505 mm	505 mm	505 mm
Stile height	58 mm	58 mm	58 mm
Number of rungs	12	10	10
Width of the rungs	30 mm	30 mm	30 mm
Weight	14 kg	12 kg	12 kg
Order Number	41916	41917	41918

	3-part	4-part	5-part	6-part	7-part
Ladder length	8.8 m	11.6 m	14.4 m	17.2 m	20 m
Number of rungs	32	42	52	62	72
Weight	40 kg	52 kg	64 kg	76 kg	88 kg
Order No.	55140	55141	55142	55143	55144

4. Assembly

4.1 Safety instructions for assembly

4.1.1 General safety instructions for assembly

- The order for assembly as shown in the illustrations must be observed.
- We recommend that personnel work in pairs to assemble the equipment.
- Before setting up the ladders, check that they are free of soiling (e.g. oil residue, dirt, snow).
- Do not exceed the maximum permissible load of 150 kg.
- The surface on which the equipment is assembled and used must be level, immobile, non-slip and of sufficient load-bearing capacity. If necessary, insert load-distributing pads under the unit.
- On uneven surfaces, use the ZARGES LCS ladder adapter.
- Ensure that the pole access ladder is set up vertically.
- The top end of the ladder must not protrude beyond the end of the pole.

4.2 Assembly instructions

The assembly instructions are in the form of diagrams.



For step-by-step instructions for assembly, see the illustrations section of this manual on Page 11.

5. Use

5.1 Safety instructions on use

5.1.1 General safety instructions on use

- Before using the product, check the following:
 - > Have all parts included in the scope of delivery been fitted?
 - > Is the pole access ladder standing in vertical position (at 90° to the horizontal plane) on an even and immobile surface of sufficient load-bearing capacity?
 - > If the subsurface is uneven: Has the ZARGES LCS ladder adapter been used?
 - > Is the product in perfect condition?
 - > Are all ladder elements firmly attached to the pole?
 - > Is the ZAST-OPTIFLEX-R4 safety slide mechanism fitted and fully functional? (For details of testing, see the operating instructions for the ZAST-OPTIFLEX-R4.)
- Do not use the pole access ladder unless all these questions can be answered with "yes."

5.1.1 Specific dangers when using the pole access ladder



DANGER

DANGER OF SERIOUS OR FATAL INJURY CAUSED BY FALLING MATERIALS OR TOOLS!

- > Never throw ladders, materials or tools, but pass them up or down from person to person or transport them using a transport rope.



DANGER

DANGER OF SERIOUS OR FATAL INJURY AS A RESULT OF FALLING FROM THE POLE ACCESS LADDER

Follow these basic rules when ascending and descending the ladder to prevent dangerous situations arising:

- > Wear a safety harness in accordance with DIN EN 361 and use a ZAST-OPTIFLEX-R4 safety slide mechanism.
- > Face the ladder and grip the side stiles with both hands when ascending and descending. Ascending or descending the ladder without holding on with both hands is prohibited.
- > Never carry loads in your hands.
- > Do not exceed the maximum permissible load of 150 kg.
- > Exit the ladder if strong winds occur. Never use the pole access ladder when wind speeds exceed 12 m/s (wind strength 6 on the Beaufort scale).
- > Never work from above or release the ladder from the pole when moving the ladder to a new position.
- > There is an increased risk on the first 3 m of the bottom section of the ladder, where the ZAST-OPTIFLEX-R4 safety slide mechanism does not provide full protection. Proceed with particular caution when ascending or descending in this area of the ladder.
- > It is essential to use a suitable follow-on safety device when exiting the system at the top end of the ladder.

5.2 Use



For instructions on the use of the pole access ladder, see the illustrations section of this manual, Page 17 .

6. Dismantling, storage and transport

6.1 Dismantling

- To dismantle the product, follow the instructions for assembly in reverse order.
- We recommend that personnel work in pairs when dismantling the equipment.



DANGER

DANGER OF SERIOUS OR FATAL INJURY AS A RESULT OF FALLING FROM THE POLE ACCESS LADDER!

Observe the following when dismantling the product:

- > Always descend to the next lower ladder element and secure yourself there with the ZAST-OPTIFLEX-R4 safety slide mechanism before releasing the attachment of the top ladder element.
- > To release the securing rope from the jam cleats, undo the knot and tug on the rope. This loosens the rope.

6.2 Storage

- Store the pole access ladder in such a way that it cannot be damaged. Store the pole access ladder in a location where it is protected from the elements, and if possible, store it laid flat.

6.3 Transport

- Never transport the pole access ladder when it is assembled.
- Dismantle the pole access ladder (see 6.1 "Dismantling") and pack it for transport.
- Secure components with a strap to prevent them sliding or falling during transport. Never throw components during loading or unloading.

7. Maintenance and servicing

7.1 Cleaning



WARNING

DANGER OF SLIPPING ON WATER IN THE WORKING AREA!

- > Dry standing surfaces and holding devices thoroughly after cleaning.

NOTE

DANGER OF ENVIRONMENTAL DAMAGE!

- > Cleaning agents must not be allowed to seep into the soil!
- > Dispose of used cleaning solutions in accordance with the applicable environmental regulations!

7.2 Inspection

Pole access ladders must be regularly inspected by a technical expert to ensure that they are safe to use. Regularly means that the inspection intervals must be selected to suit the operating conditions.

In the case of continuous and intensive use, daily inspection of the ladders may be necessary. If the ladders are seldom used and loads are light, inspection must be performed at least once a year.

The technical expert is authorised to carry out inspection by the operator and must have attended the seminars prescribed by law in the country concerned.

- Following successful inspection, the ZARGES inspection plate (Order No. 891209 or 828384) must be attached to the product. The month and year in which the next inspection is due must be clearly legible for users of the equipment.

Inspection must cover the following points

7.2.1 Deformation, denting and cracks

Check the following components for deformation, denting and cracks:

- ladders and rails, karabiners, lugs
 - > If any component is found to be faulty, the pole access ladder must not be used.
 - > If a fall has occurred, the ladder segment in question must always be replaced.

7.2.2 Correct functioning

Before using the pole access ladder, check the following components for correct functioning:

- karabiners, safety fasteners, fall protection, overrun, locking mechanisms
 - > If any component is found to be faulty, the pole access ladder must not be used.

Inspect the ZAST-OPTIFLEX-R4 safety slide mechanism in accordance with the ZAST-OPTIFLEX-R4 operating instructions.

7.3 Repairs

Effecting repairs of any kind to the equipment is prohibited. Any damaged parts must be replaced.

7.4 Spare parts

Each product produced to customer specifications is assigned a serial number. The serial number can be found on the type plate. This serial number can be used to order appropriate spare parts.

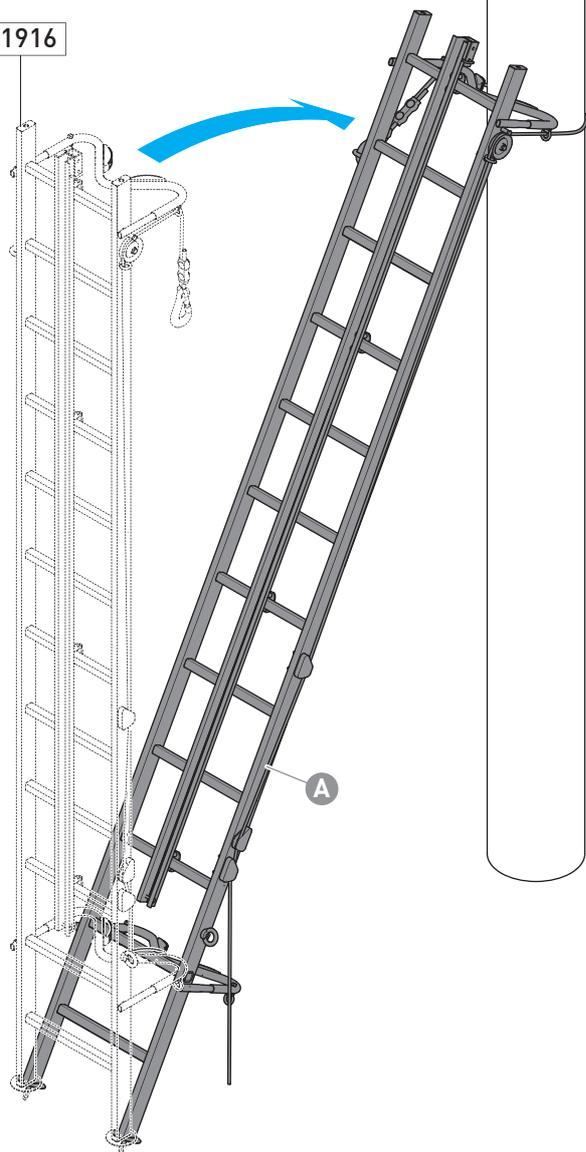
Use only original spare parts manufactured by ZARGES.



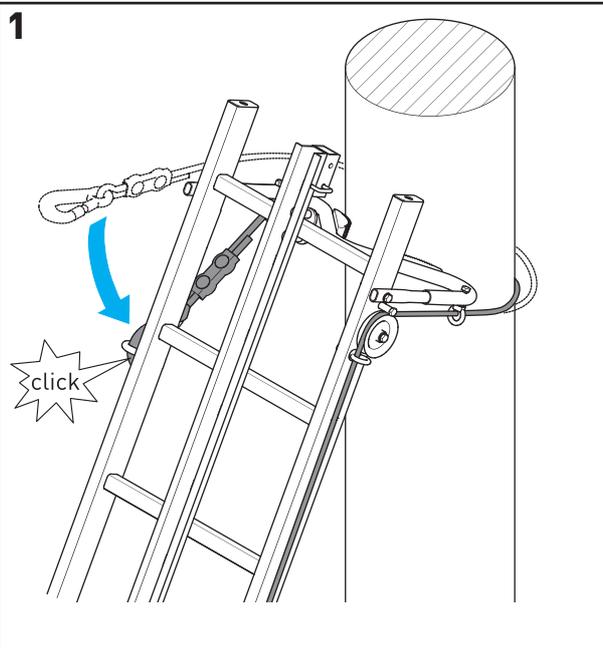
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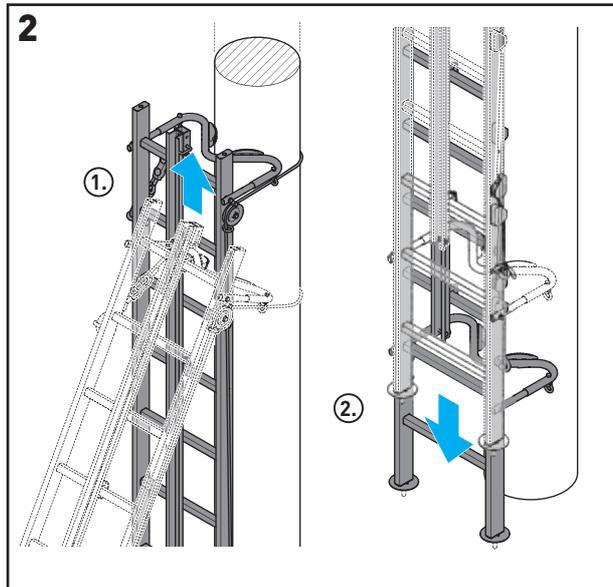
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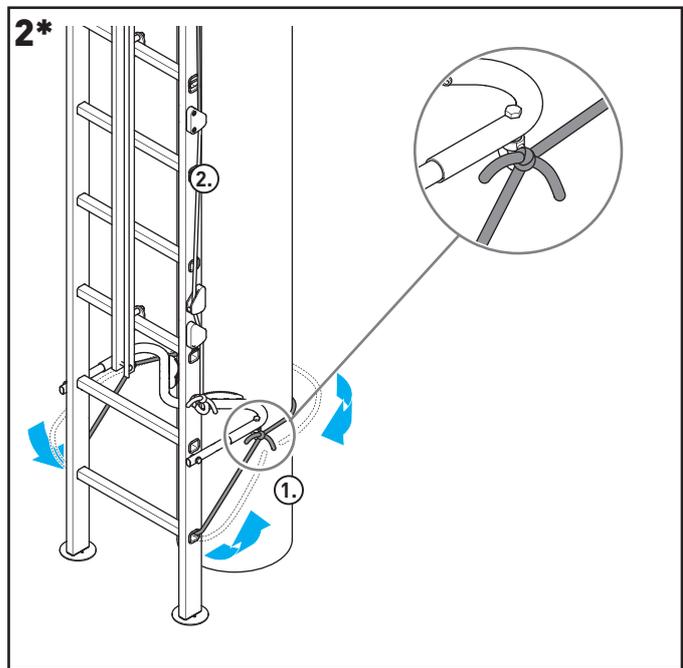
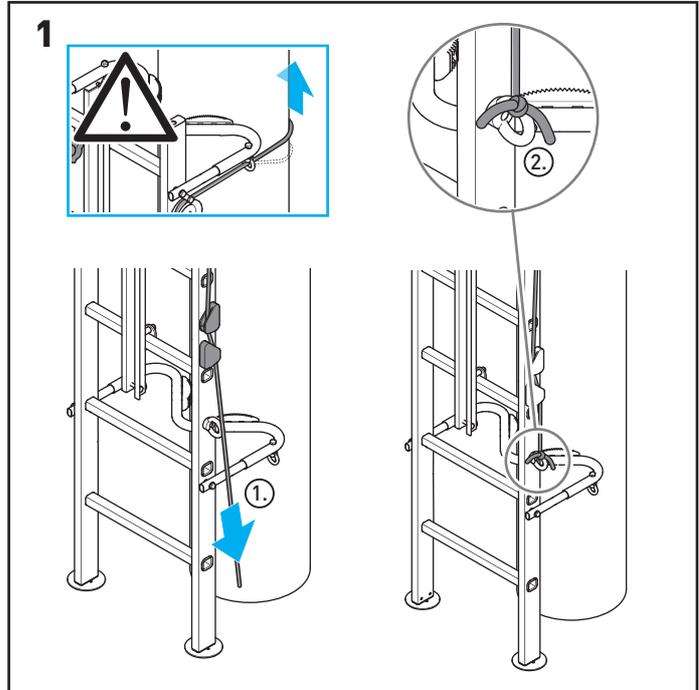
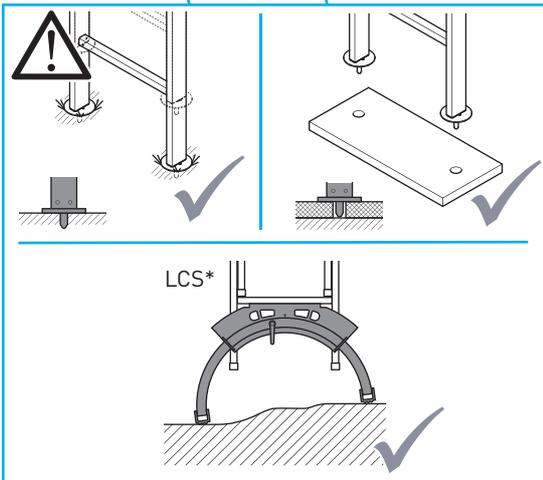
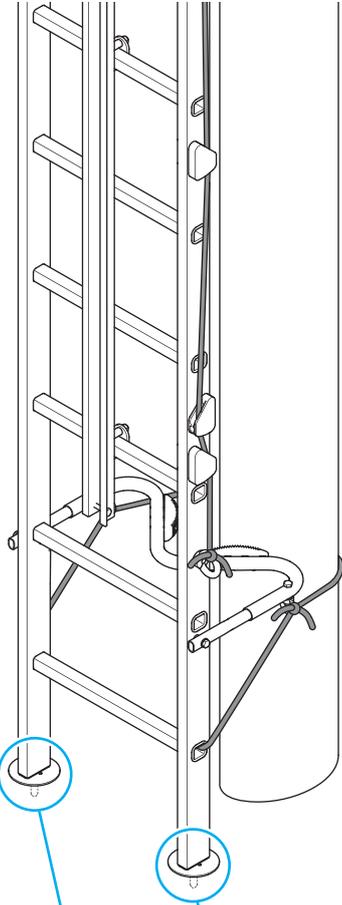


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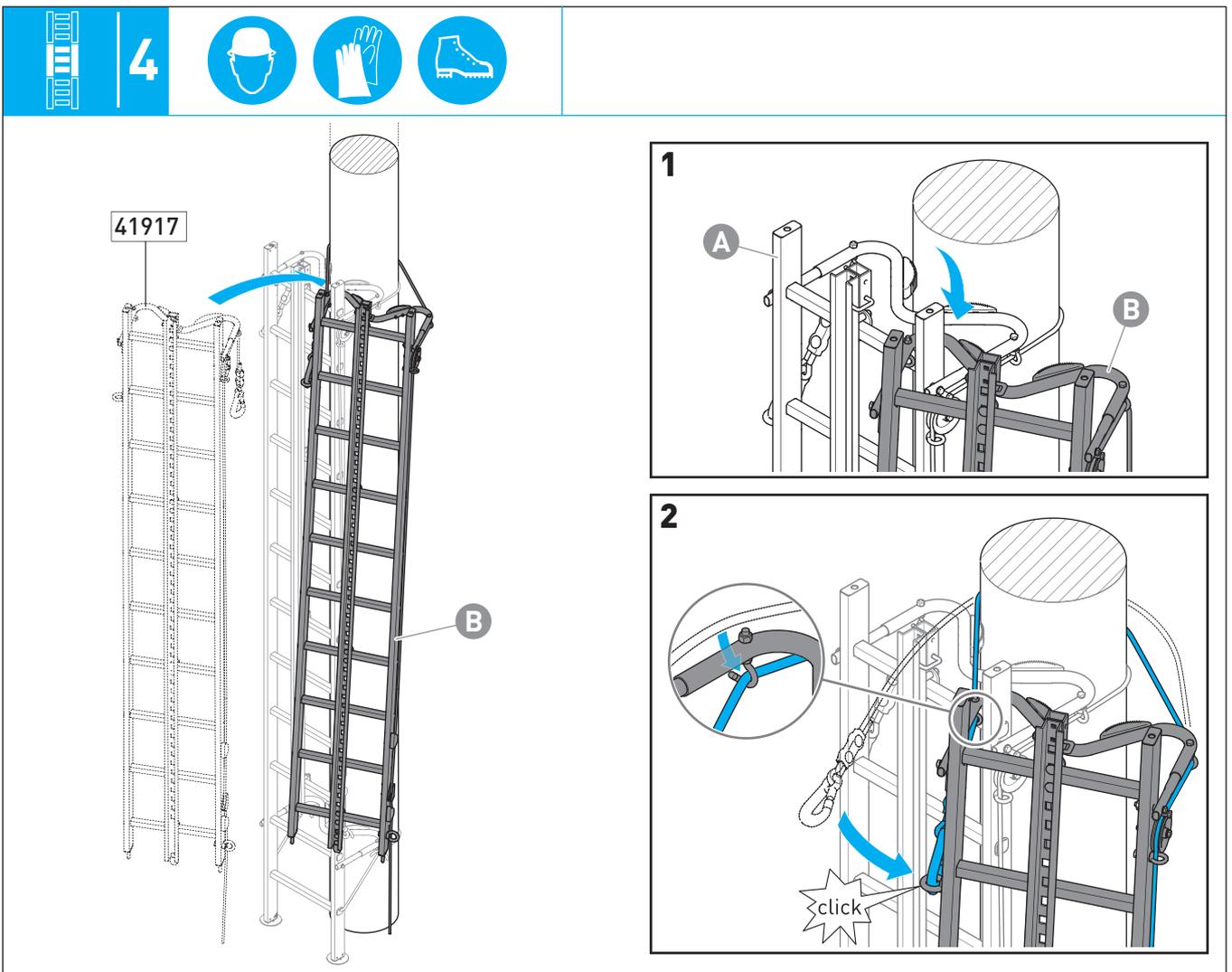
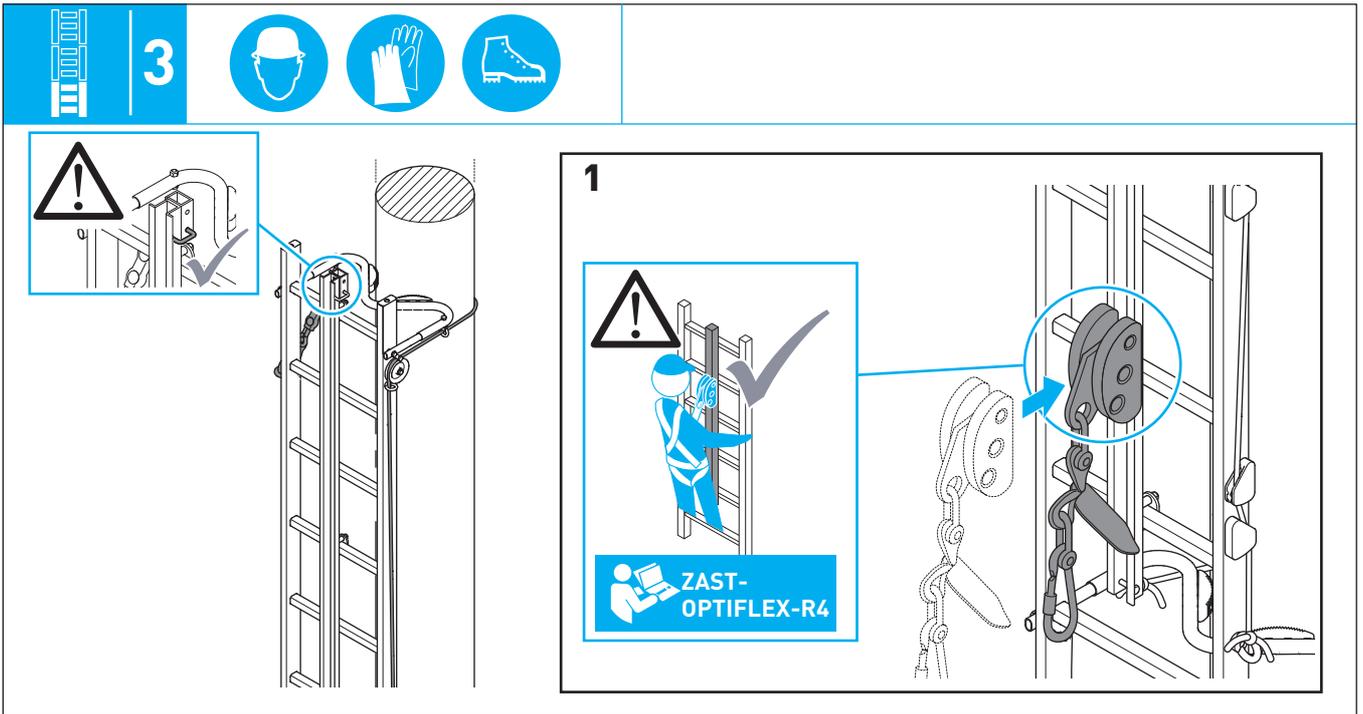




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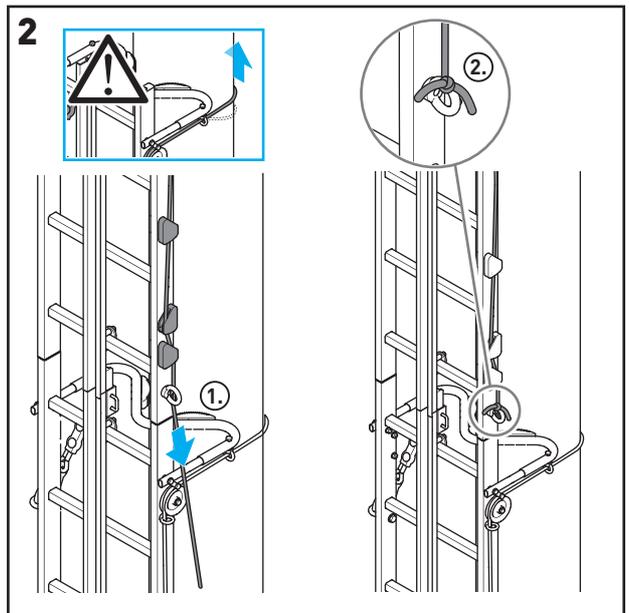
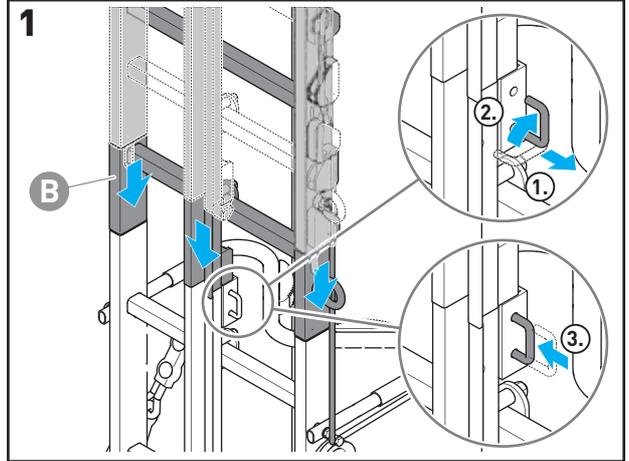
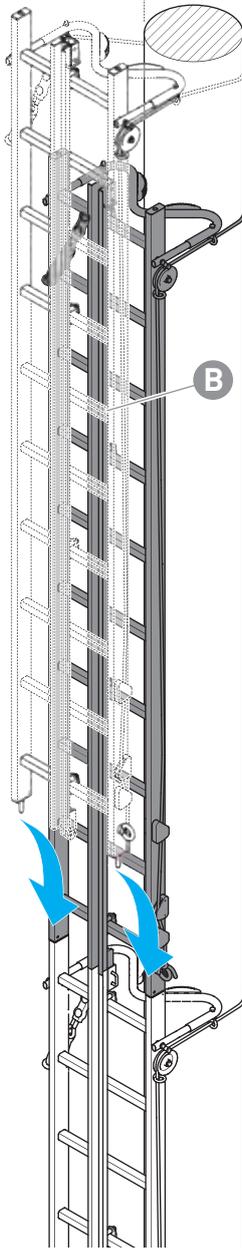


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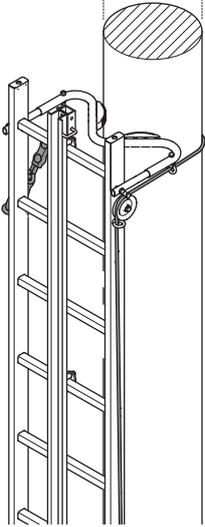




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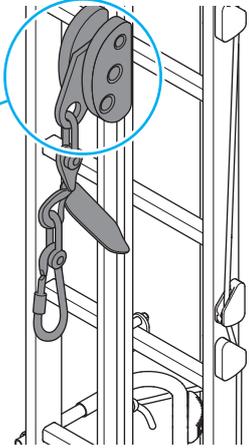
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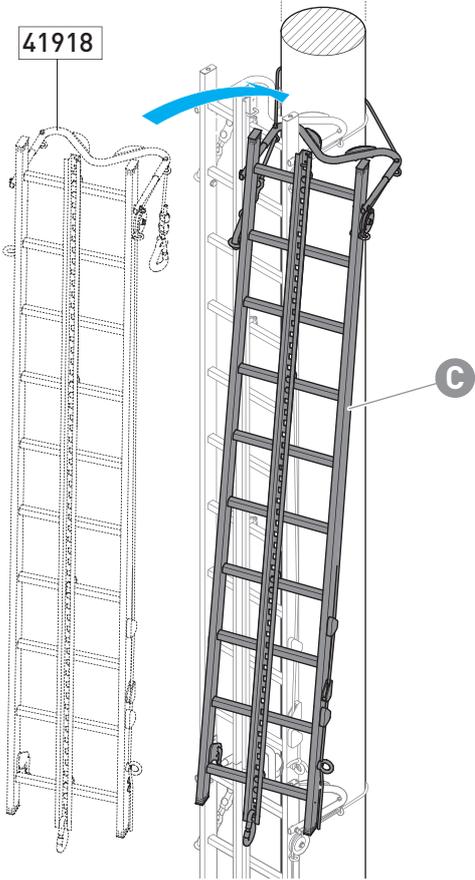
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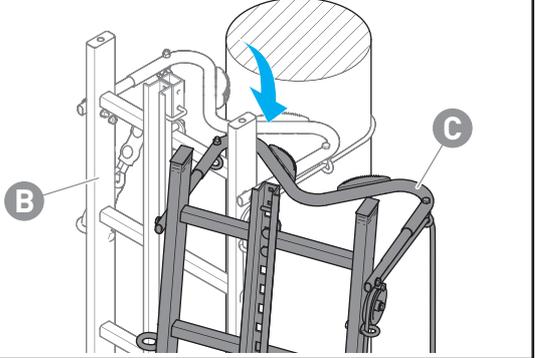
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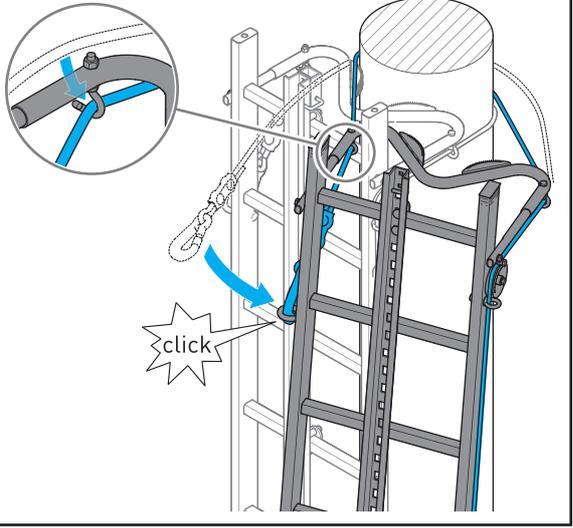
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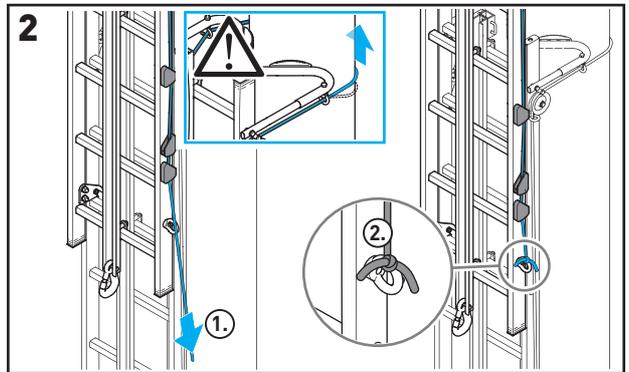
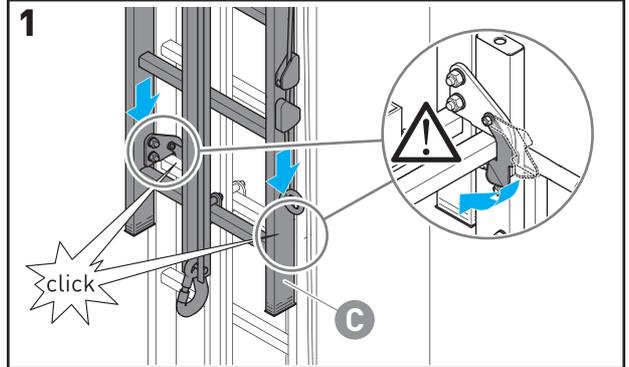
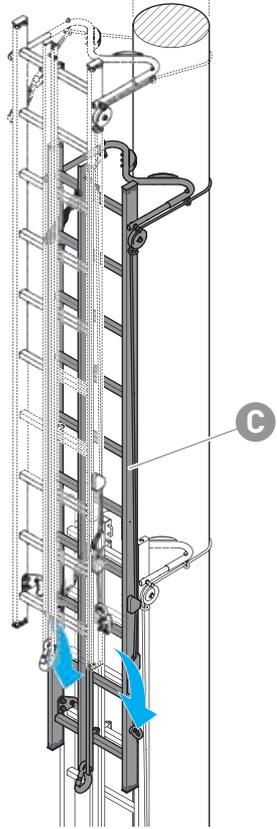
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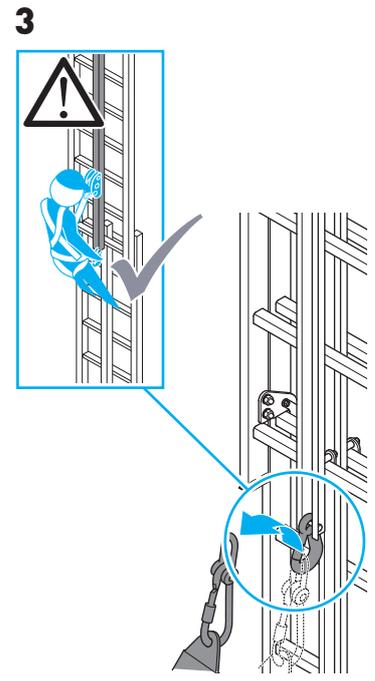
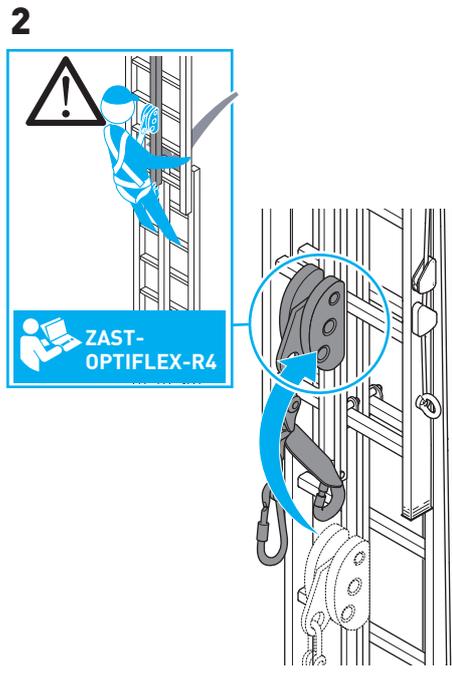
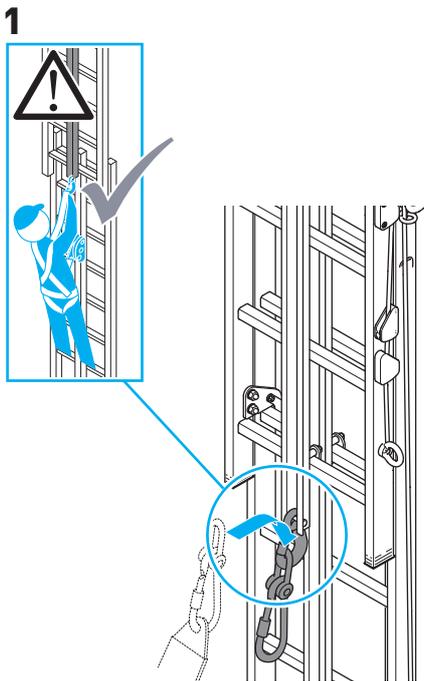
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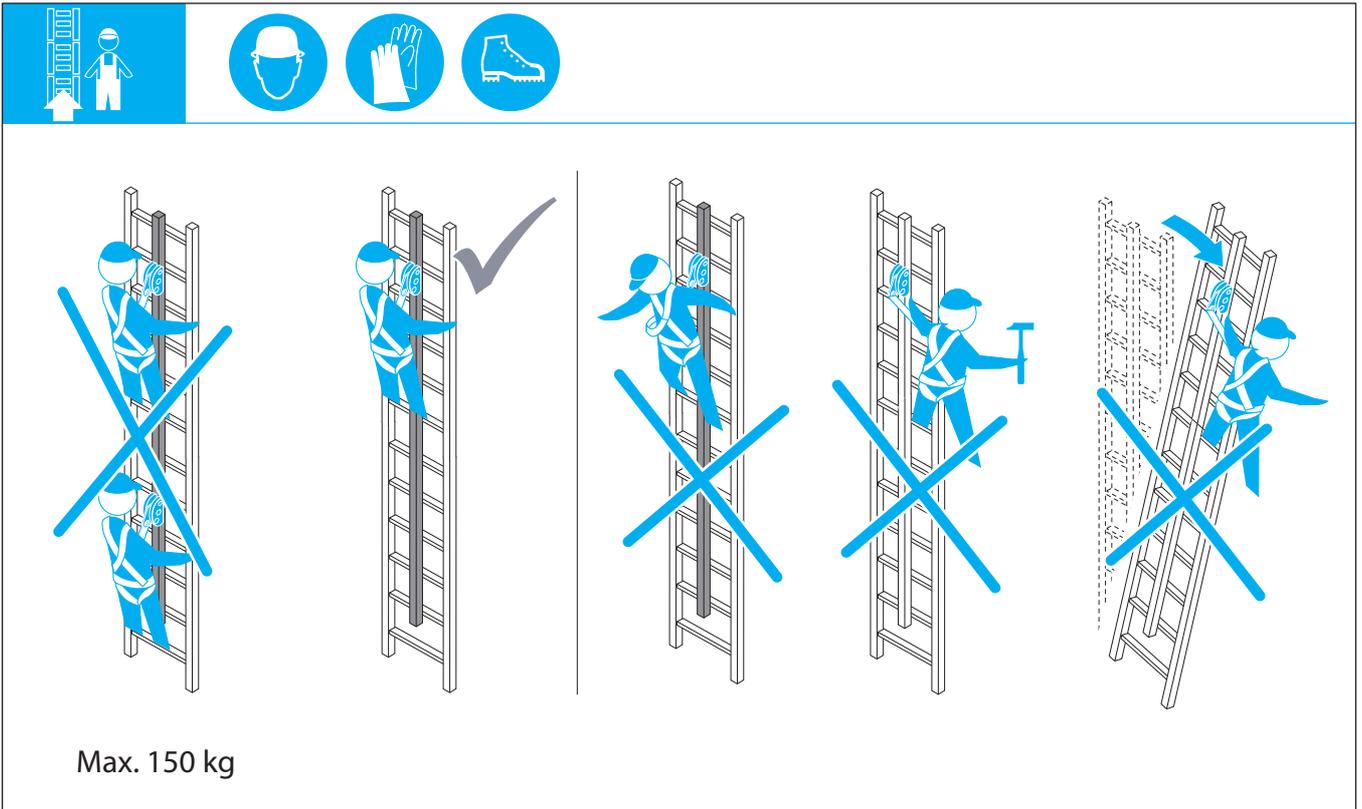


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