

## Instruction manual of pole climbers for concrete poles

TYPE: B10, B20, B40  
PN-E-55000



TABLE OF CONTENTS:

1.	Intended use of device.....	1
2.	Structure of pole climbers .....	1
3.	Maintenance and inspection for wear.....	2

### 1. Intended use of device

Pole climbers are auxiliary equipment and provide no protection against falling from a height.

Permissible user's weight is 120kg, including necessary equipment.

Pole climbers can be used only and exclusively together with additional protection against sliding or falling from a height (work positioning belt with kernmantle rope, full body harness with sit harness) and a safety helmet for electric works.

Pole climbers are used for vertical movement of worker on concrete poles of rectangular cross-section.

Pole climbers are available in 3 sizes.

Figure 1

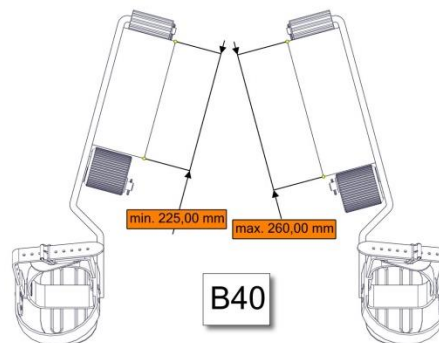
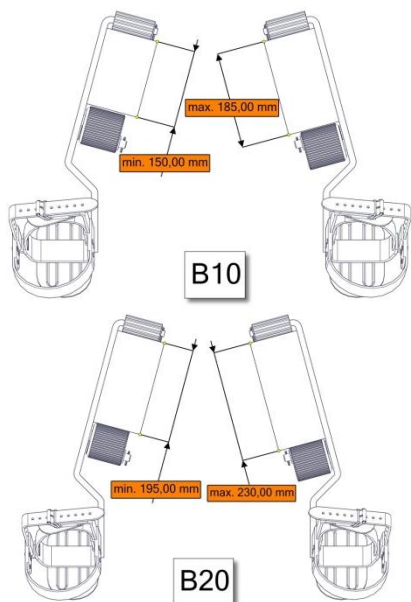


Figure 1. Sizes of pole climbers B10, B20 and B40

Dimension range of prestressed concrete poles is given in figures. They include actual cross-section of pole which a given pole climber model can be used on.

### 2. Structure of pole climbers

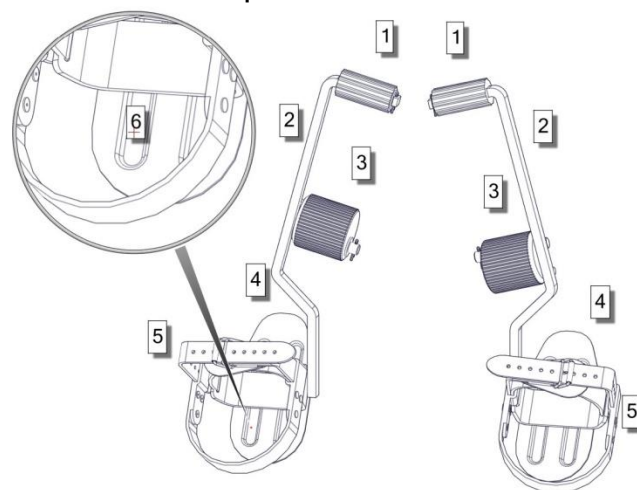


Figure 2. Structure of pole climbers

- 1- Replaceable fixed rubber roller SP011
- 2- Hardened steel grab
- 3- Replaceable eccentric rubber roller SP012
- 4- Steel foot
- 5- 2-piece strap SP021
- 6- Location of device marking
  - PROTEKT B10 – marking of manufacturer
  - PN-E-55000 – standard which pole climbers comply with
  - 11/2021 – month/year of manufacture of pole climbers
  - Serial number: xxx xxx – serial number of pole climbers

Pursuant to PN-E-55000 pole climbers are made as grab made from tempered steel (2) terminated with foot (4) inclined at 60° (Figure 3). Adequate inclination angle of parts ensures correct posture of a worker and setting of legs when climbing. Pole climbers have straps attached, which fix worker's feet (5).

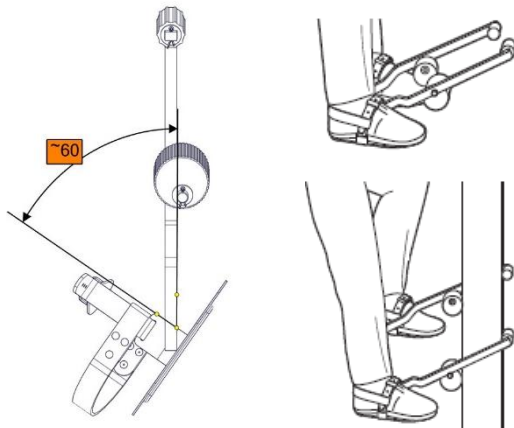


Figure 3. Angle of setting of pole climbers

### 3. Maintenance and inspection for wear

After work is finished, remove any soiling from pole climbers, and inspect condition of rubber parts and straps.

When affected by moisture, or after contact with ice, dry the device in a room temperature.

Store devices in a dry room.

Apply talcum powder on rubber parts regularly.

Rubber rollers and grab have a direct contact with concrete surface of prestressed concrete pole which keeps pole climber on its cross-section but at the same time causes wear of the parts that touch the pole.

In pole climbers, 4 parts should be inspected.

#### a) Grab of pole climber

Wear of grab of pole climber is inspected by measuring its cross-section in three points over a distance between rollers. Nominal dimension of grab is 12mm. Abrasion of surface of grab in contact with concrete pole causes reduction of its strength. Dimension in any point should not be less than 11.6mm (Figure 4). The measurement can be taken with calliper or micrometer. In case of major wear, pole climbers must be withdrawn from use.

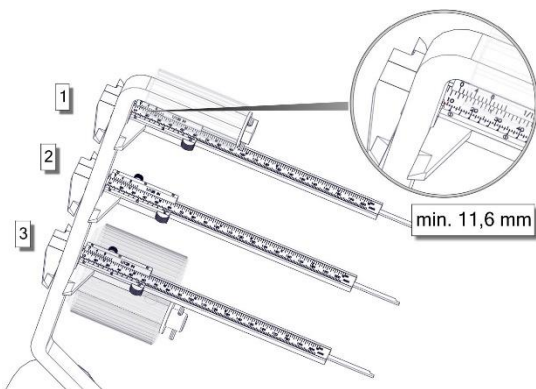


Figure 4. Measurement of cross-section of grab

#### b) Small fixed roller

Wear of fixed roller of pole climbers is inspected by organoleptic assessment of wear of anti-slip tabs of such roller over its whole length. If a tab is worn completely in a place where it touches the pole, replace roller to avoid a complete wear and disintegration.

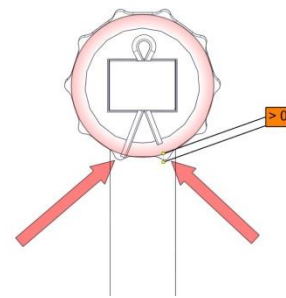


Figure 5. Assessment of wear of roller

#### c) Large eccentric roller

Wear of eccentric roller of pole climbers is inspected by organoleptic assessment of wear of anti-slip tabs of such roller over its whole length. If a tab is worn completely in a place where it touches the pole, replace roller to avoid a complete wear and disintegration.

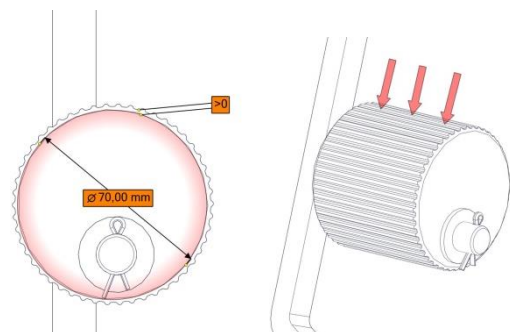


Figure 6. Assessment of wear of large roller

#### d) Inspection for damages of straps

Wear of straps is inspected by assessment of cracks over its surface. When in operation the material of straps can wrinkle. Check whether straps have no cracks throughout their surface or material delamination which could cause their disintegration when in use.

### 4. Time of usage

Maximum time of usage of correctly operating devices is unlimited.

The device must be withdrawn from use immediately and destroyed if it has been used to arrest a fall, or there are any doubts concerning its function or is not consistent with assessment described in point 3. Maximum time of usage of the device depends on intensity and environment of use. If the device is used in heavy conditions, being exposed to frequent contact with water, sharp edges, corrosive substances, extreme of temperatures, it may be necessary to withdraw the device after only one use.

### 5. Warranty

The manufacturer grants a warranty for 12 months from the date of purchase of the device. If a defect is found in any part, the warranty and guarantee period for this part is extended by the time of repairs and effective removal of the defect found.

The warranty covers:

- Defects in material,
- Defects in workmanship,
- Anti-corrosion coating defects.