

Telescopic rod for pulling down trolley bus pantographs and other work on and near overhead lines

TROLLEYMAN T 3.6kV

intended for work under voltage up to 3.6 kV

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Instructions for use

1. Introduction

The Trolleyman T' 3.6kV telescopic rod is primarily intended for handling trolleybus current collectors (pulling and attaching the collector to the trolley), or for other work on and near the trolley line. The set is tested and approved for work under voltage up to 3.6 kV DC.

The telescopic rod consists of four tubular parts. When fully extended, the pole is 5.6m long (including the tool) and when fully folded, it is 1.7m long. Locks with a spring pin are used to lock the individual parts together. By fitting into the hole in the following pipe part, the pin secures the pipe parts securely against being pushed out or turned. The tool is located at the end of the top pipe part No. 1. The total weight of the rod with the tool is 2.5 kg.

2. Operating conditions

The Trolleyman T' 3.6 kV set is designed and tested for nominal voltages up to 3.6 kV DC. Climatic class normal, i.e. for the temperature range -25°C to 55°C. It is an outdoor type tool without restrictions, i.e. it can also be used in rain, snow and fog. The exception is freezing precipitation (see paragraph 4). All basic data are listed on the nameplate.

3. Working with the kit

The figure shows schematically the lengths of the telescopic rod, which can be achieved by different combinations of extending the individual pipe parts. When extending the telescope, it is necessary to squeeze the corresponding spring pin with your finger and with the other hand to extend the tubular part to the maximum extended position. Then turn to secure by snapping the pin

(check) into the hole in the following pipe section. With the Ize set, work under tension in two lengths of the work rod. At a maximum length of 5.6m, all parts are extended and secured (assembly III). Shorten the Ize rod to 4.3 m by inserting and securing part 3 into part 4 (II). When fully retracted, the length is 1.7 m (I). Only assemblies II and III are intended for work under voltage.

4. Safety recommendations

- When working under voltage, both end (top) parts No. 1 and 2 of the rod must be fully extended. The extended length of both end pieces without the tool is 2720 mm and is indicated in the picture.

- When working on or near the line, it is necessary to check the position of the limit mark in relation to live parts and take into account the possibility of accidental movement of the worker or the rod. Always keep the rod under the collar when working.

- Keep the bar clean. In principle, do not use damaged or incomplete parts of the kit.

- Work in wet conditions (fog, rain) is only possible if all safety rules are observed.

- Work in freezing rain is possible only if the operator does not allow a continuous layer along the length of the rod to freeze. Special attention must be paid to the insulating part of the rod (the length between the collar and the limit mark) and to keep it clean. The most dangerous is the melting continuous ice.

- When working on the line, its technical condition must be taken into account.

- It is necessary to respect all standards and safety regulations for operating and working on electrical equipment and regulations for working near catenary lines (e.g. Decree No. 50/1978, etc.).

- The information provided in this manual cannot cover all situations that may occur during field work. This manual should be supplemented by local operating and safety regulations drawn up by the rig operator. It takes into account specific local conditions and the instructions given in it may supersede the instructions given in this manual!

5. Holiday stressing sets

Pull-up bar (in vertical position for lifting weights): II/20 III/10 kg II-III/60 kg

Pull rod:

The values are given in the format no./max. load, 1kg=10N.

6. Assembly of the kit and transport

For transport and storage, all parts are pushed together (assembly I). Folding the rod is done by gradually unlocking (squeezing) each spring pin and inserting the corresponding pipe part into the following part as far as it will go. Inserting the individual pipe parts can be done in any order, but it is best to start from the bottom parts.

When inserting in a vertical position, prevent a sudden fall of one pipe part into another. In the case of inserting most of the parts, this is helped by the slow expulsion of the air enclosed in the space between the parts. When inserting part 3 into 4, however, it is necessary to brake the part by hand and preferably rest the end of the rod (pumpkin) on the ground so that the pumpkin does not "knock" out of the

heels of pipe part No. 4. 7. Cleaning

Clean with a dry cloth (without hair) or slightly moistened with clean water. Only cleaning agents approved for live tools may be used. Under no circumstances should detergents be used in liquid or powder form, as they can damage the surface or leave conductive residues on it. Allow the rod to dry thoroughly in the expanded state before using it again. The surface can be waxed (see EN 62193 Annex F). The wax must be approved for use on live tools. Any other surface modifications, such as painting, are not permitted. In case of surface damage, the damaged part must be replaced with a new one (replacement is carried out by the manufacturer). 8. Storage

In dry and dust-free rooms up to 40°C, preferably on consoles, in a shelf or at least supported on the ground. Beware of being crushed by moving carts or cars. Avoid dropping heavy objects on the tubular parts of the rod. Storage areas must be protected against direct sunlight.

9. Type, unit and periodic tests

Complete electrical and mechanical type tests were carried out in the state-accredited testing laboratory EGÚ - HV Laboratory, a.s. according to harmonized European standards ČSN EN 62193 and ČSN EN 61243-1. Piece test of each set is carried out according to these standards. Based on the tests, the manufacturer issued a declaration of conformity, which is attached to the kits. A periodic test must be performed at least once every 2 years and follows the recommendation for periodic tests (supplied with the kit).

10. Warranty period

24 months from removal from storage for defects caused by production. The warranty does not cover malfunctions caused by careless handling and disregarding the recommendations in this manual.

5.6 m - 4 parts max. length

4.3m- 3 parts

The limit mark is red in color and defines a physical limit for the user to insert an insulating rod between or touch live parts.

2720 mm - length of parts 1 and 2

Skirt Silicone rubber skirt increases electrical safety in the rain.

A protective collar made of black rubber separates the handle from the insulating part. When used on or near power lines, the pole must not be held above this collar.

1.7m- min. length

The type plate is located on the lower pipe part and contains information about the operating conditions under which the set can be used.

