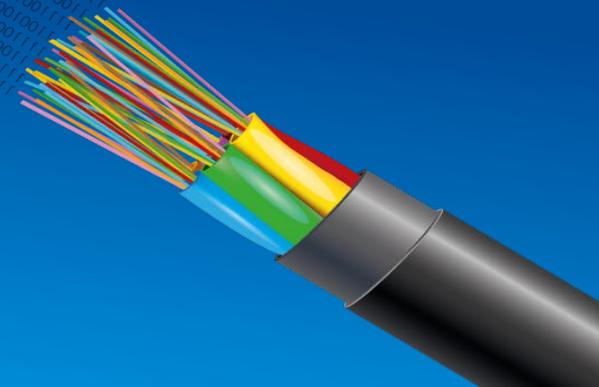
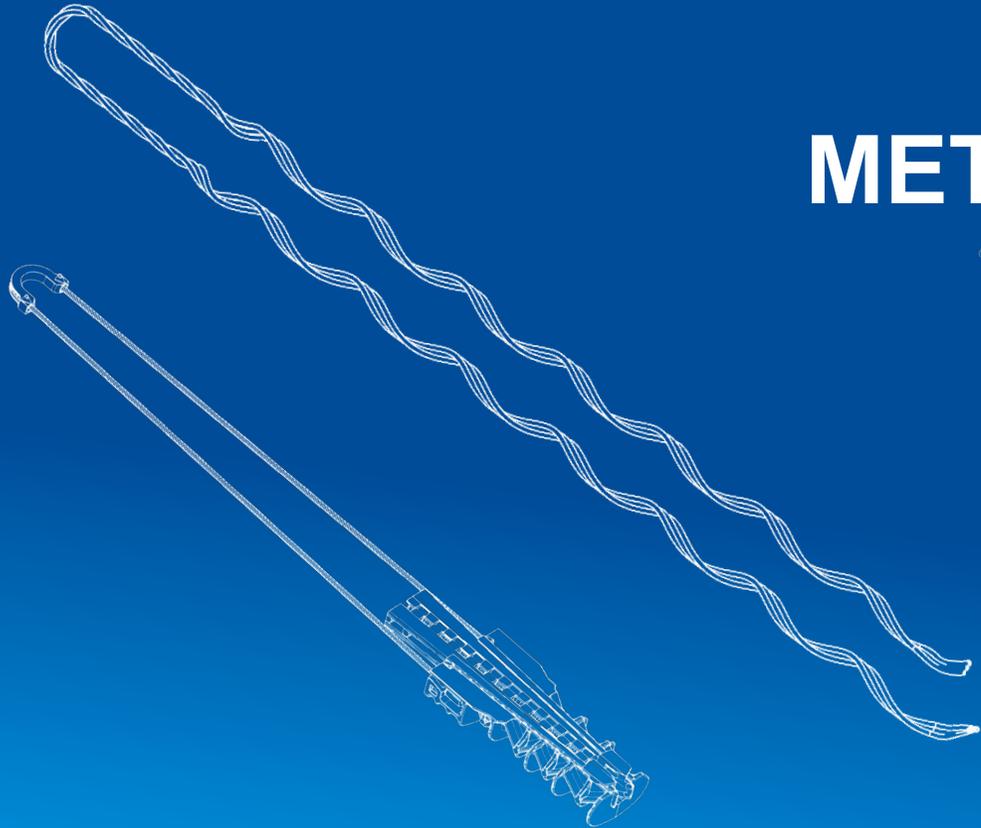


# MALICO®

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## METHODS OF INSTALLATION OF ADSS FIBER OPTIC CABLES



**Two main methods recommended by the cable manufacturers**

**A** **“Mobile Cable Reel” method**  
**generally recommended for span < 50 m**

**B** **“Static Cable Reel” method**  
**generally recommended for span > 50 m**

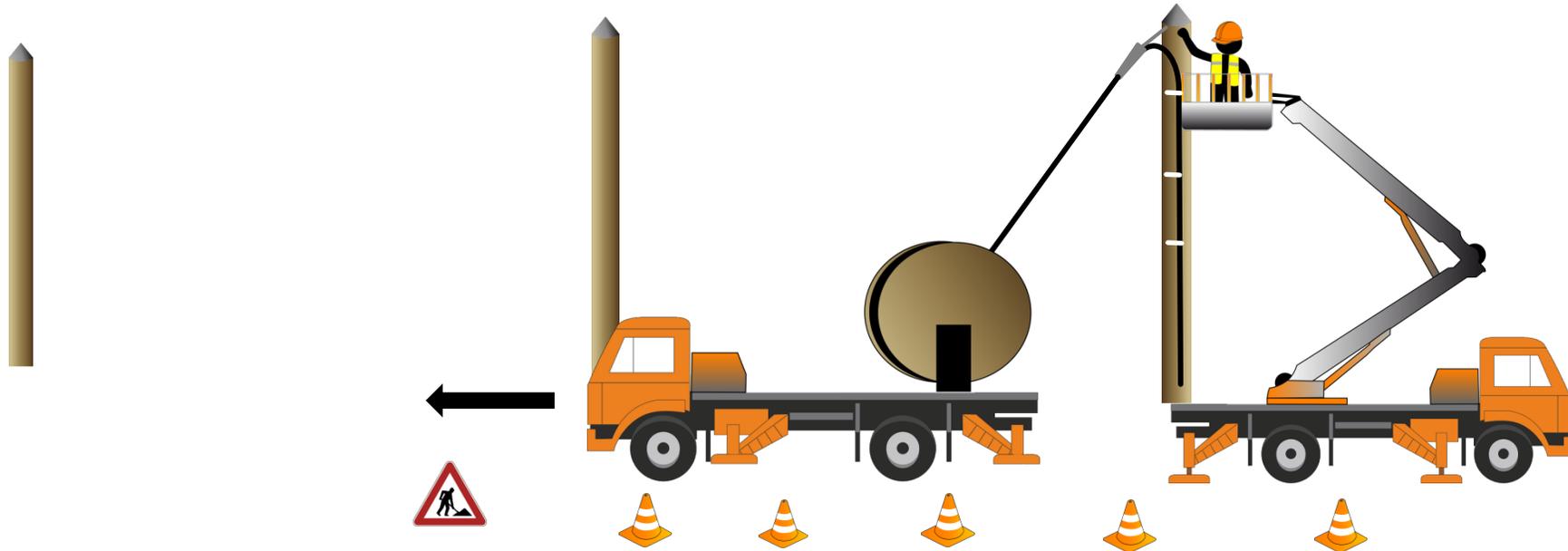


## “Mobile Cable Reel” method

### General sketch

The cable reel is placed on a truck platform or on a trailer.

The cable is anchored on the first pole of the aerial line, then immediately placed on the next pole support following the line route.

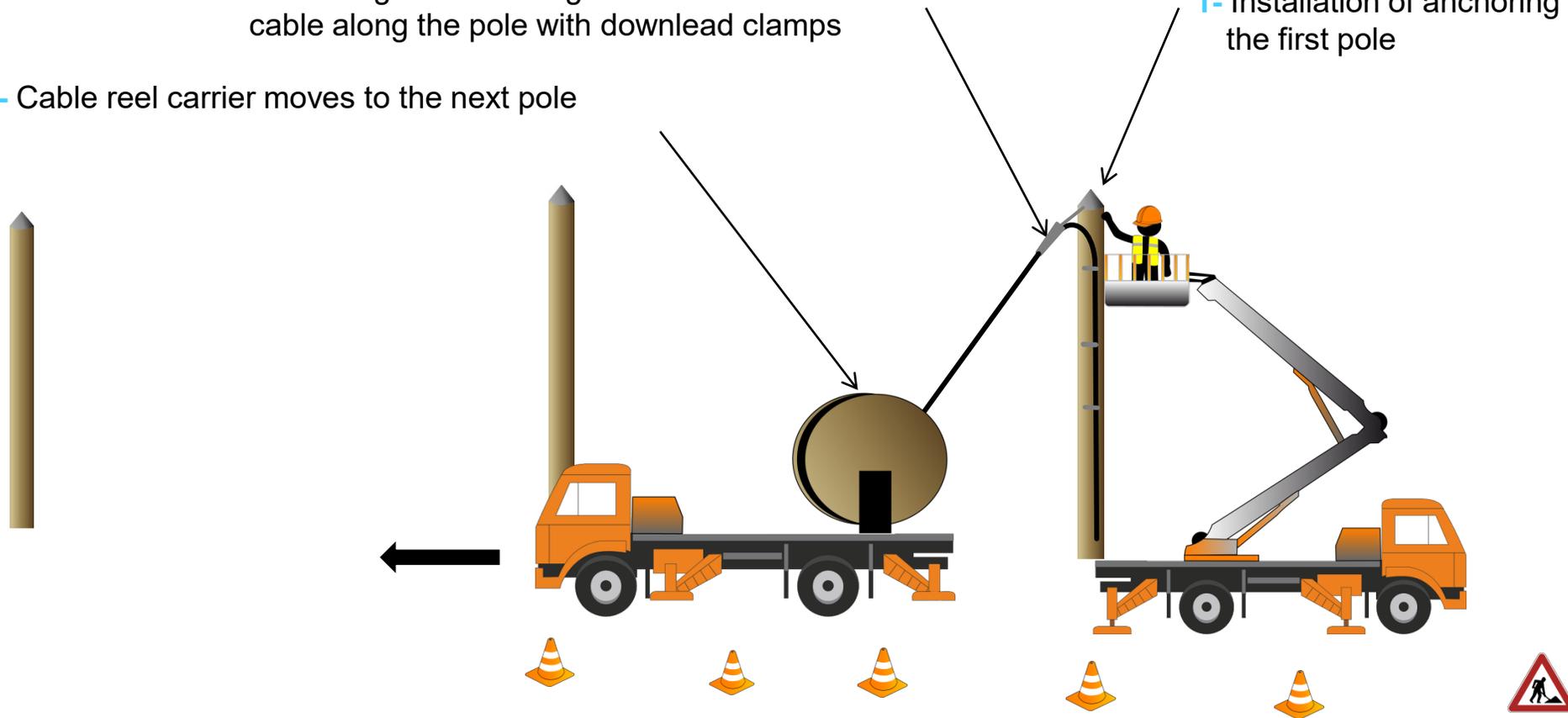


## A “Mobile Cable Reel” method - Step 1

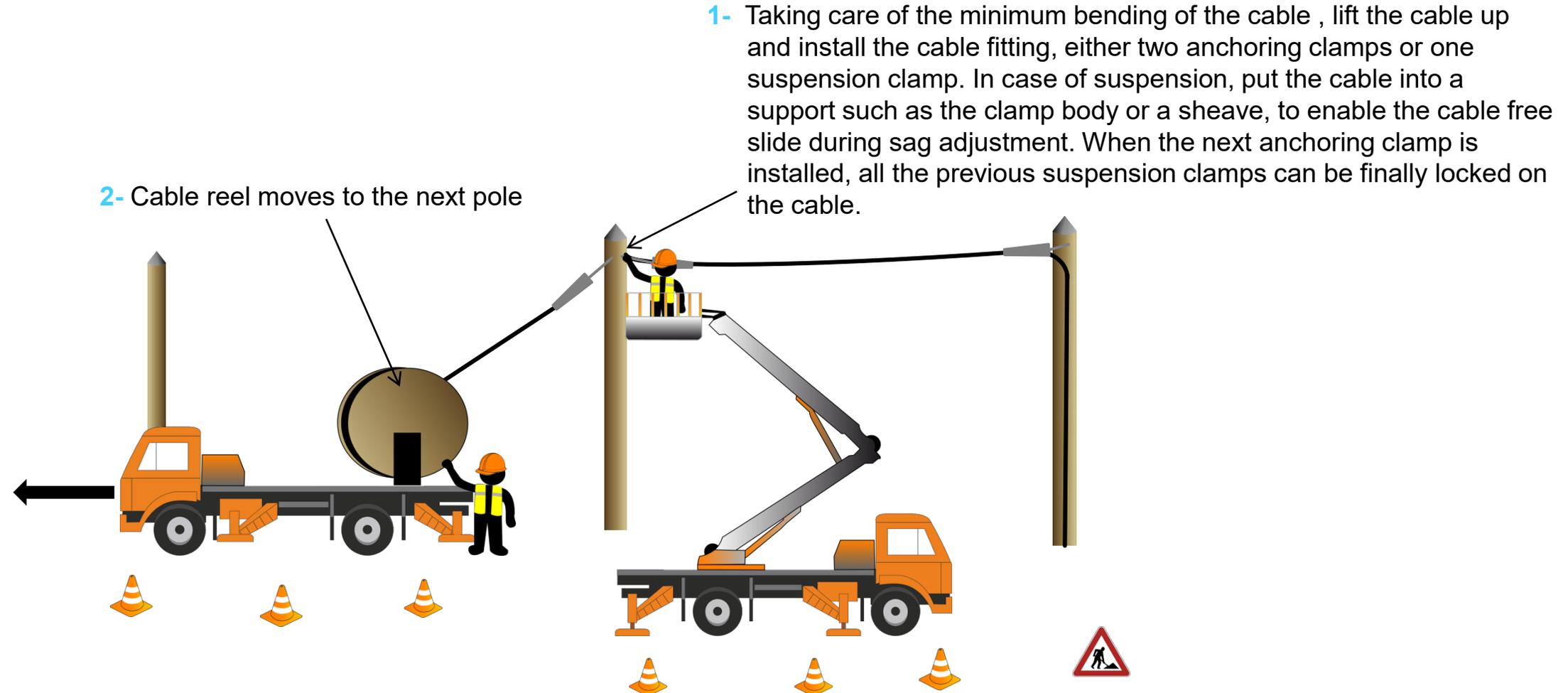
2- Fastening of the underground-aerial transition cable along the pole with downlead clamps

1- Installation of anchoring clamp on the first pole

3- Cable reel carrier moves to the next pole



## A “Mobile Cable Reel” method - Step 2



## “Mobile Cable Reel” method

### Advantages

This method enables a quick installation with a limited strength force on the cable. It is possible to adjust the sag on a line section between two anchoring clamps with no need to unwind the complete cable length available on the reel.

### Inconvenients

Practically, this method is usable mainly on the road side of the pole, only in the absence of tall obstacle between the road and the poles, such as trees, other poles, building... and in the absence of other drop cable.

# B “Static Cable Reel” method

## General sketch

Installation of “large diameter” sheaves at the extremities of the line section and route angle poles

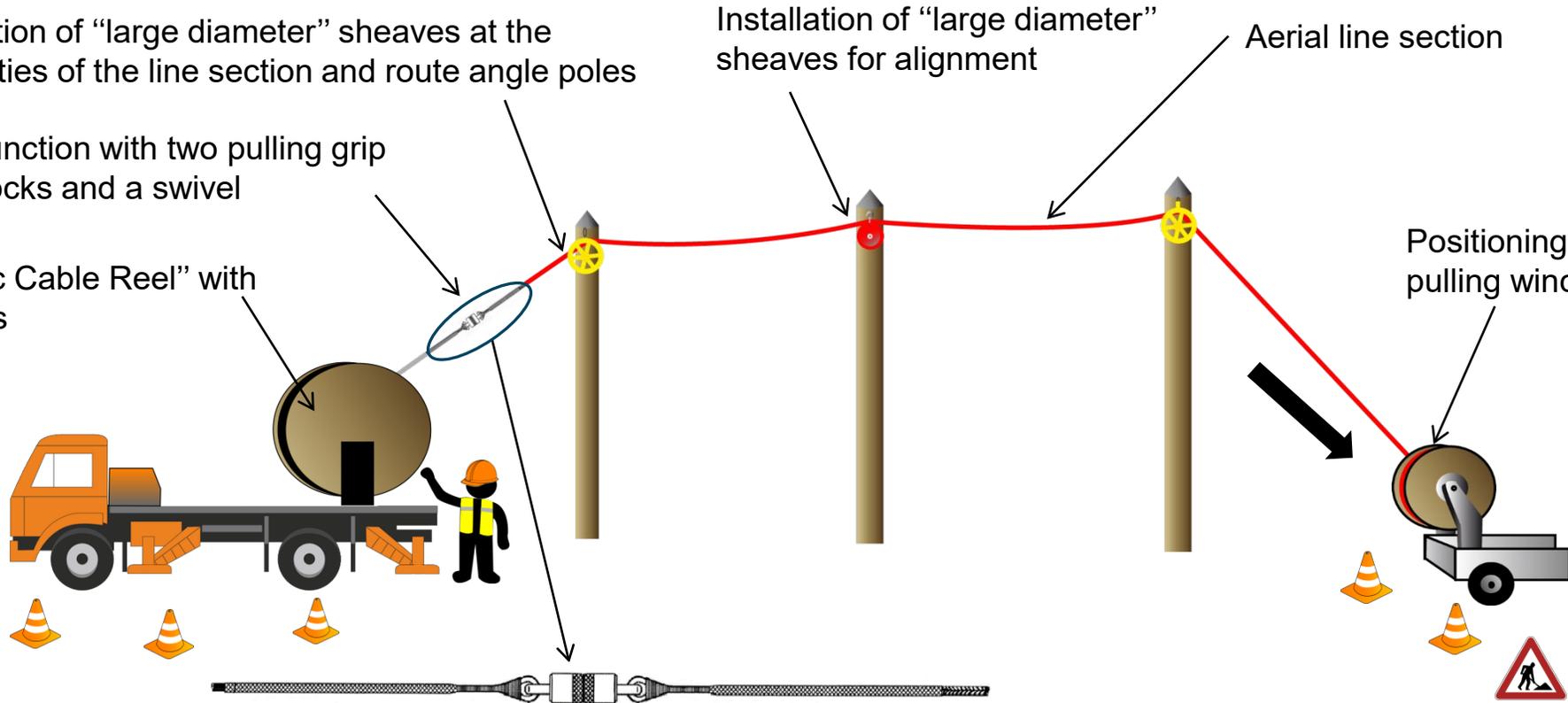
Installation of “large diameter” sheaves for alignment

Aerial line section

Junction with two pulling grip socks and a swivel

“Static Cable Reel” with brakes

Positioning of rope pulling winch



Cable junction/Aerial line section

## B “Static Cable Reel” method

The cable is pulled over a section by a pulling line connected to the ADSS cable and previously routed to each support in guide pulleys having a radius of curvature adapted to the cable.

The cable is unrolled from a static cable reel, placed at one end of the section on a trailer or a specific support. The cable must be unwound from the top of the reel.

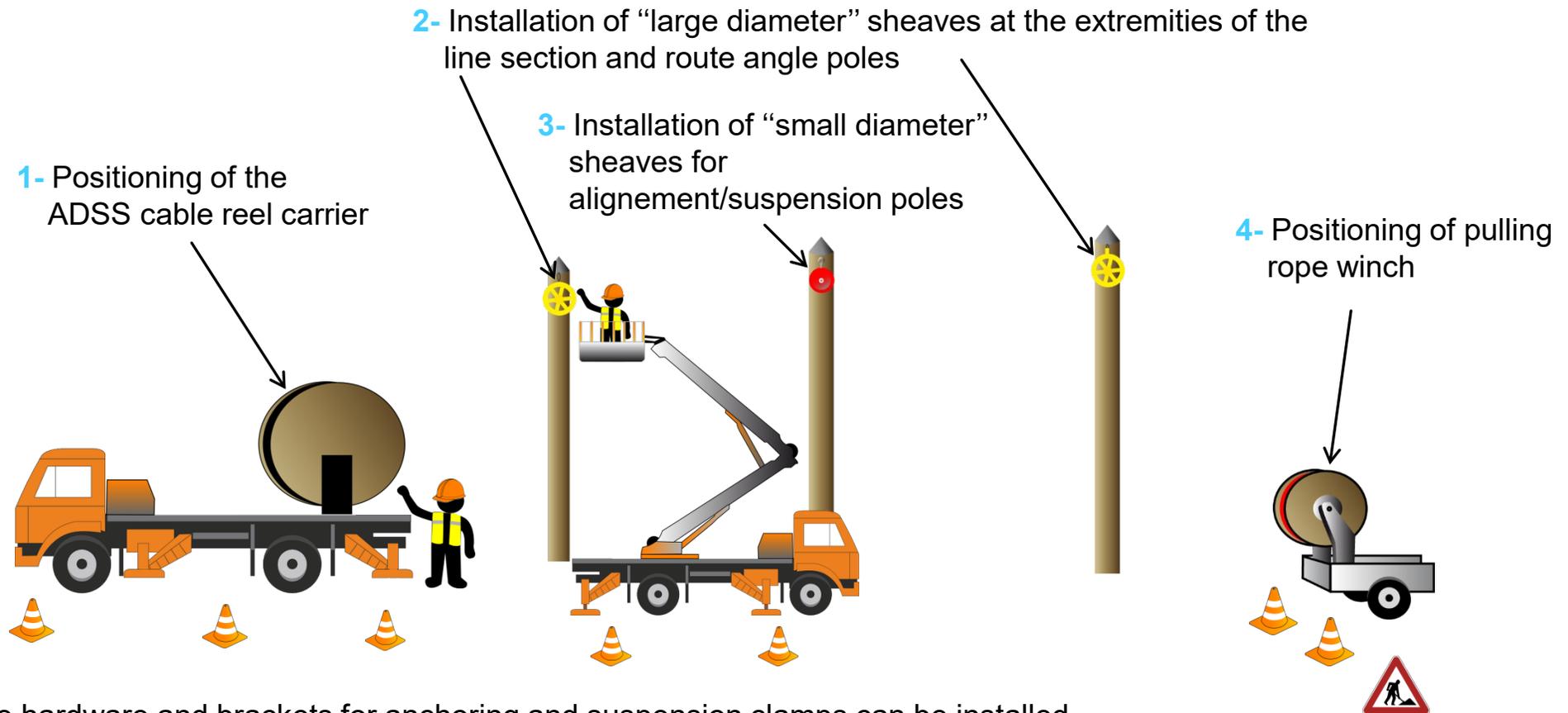
At the other end of the section, the tensioning of the pulling line is carried out by a fixed capstan winch.

If necessary, the stopping supports at the ends of the section are reinforced by temporary guying.

During unwinding, monitoring is necessary to control the tension with a device such as a gauge placed in the pulling chain, to avoid the risk of the cable returning to the ground between the supports and to check the correct passage of the cable in the pulleys.

The cable is then fixed to the arms by installing anchoring clamps on each end of the section after adjusting the booms, then installing the suspension clamps.

## B “Static Cable Reel” method - Step 1

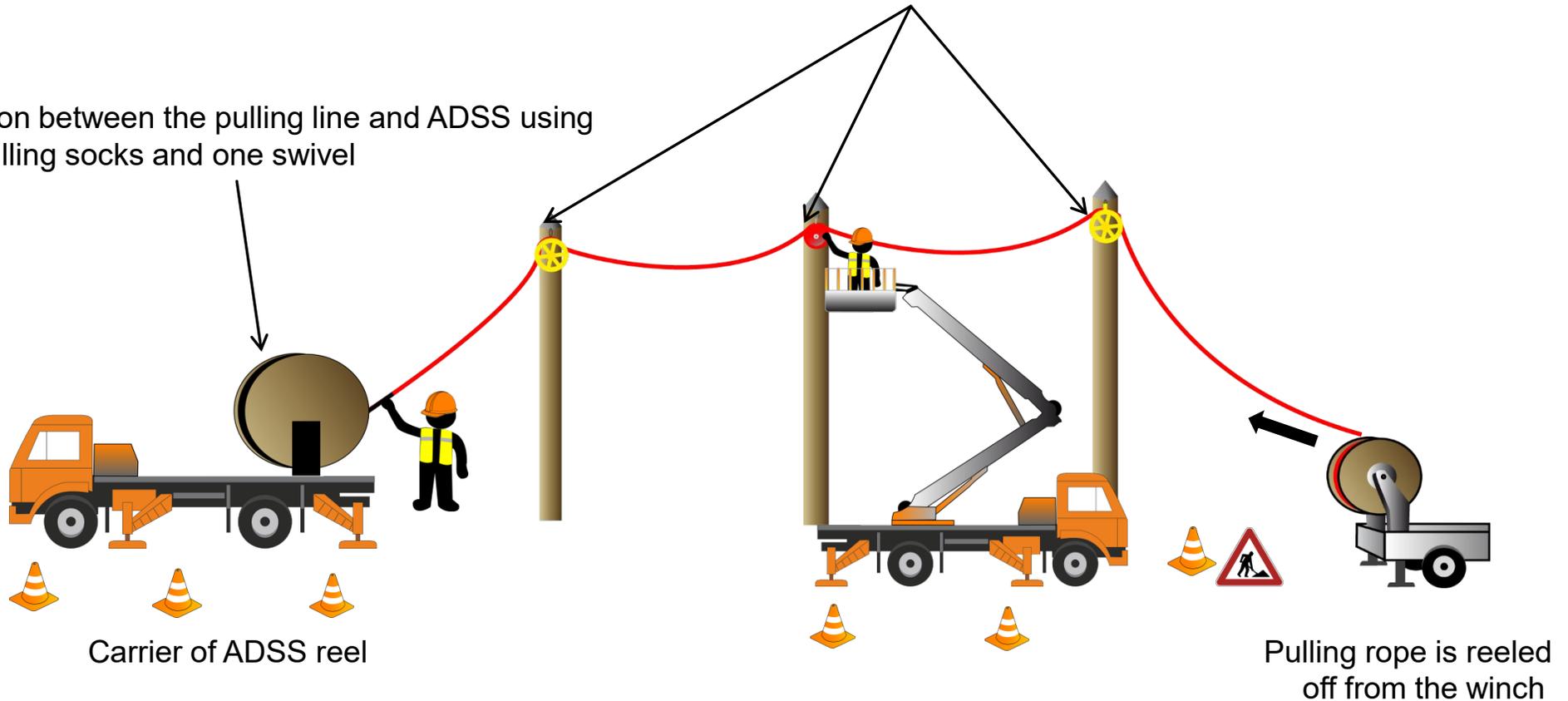


Note: Pole hardware and brackets for anchoring and suspension clamps can be installed at this stage to be used as a support for the pulleys.

## B “Static Cable Reel” method - Step 2

1- Positioning of the pulling rope into sheaves.  
(Can be do in same time of installation of sheaves)

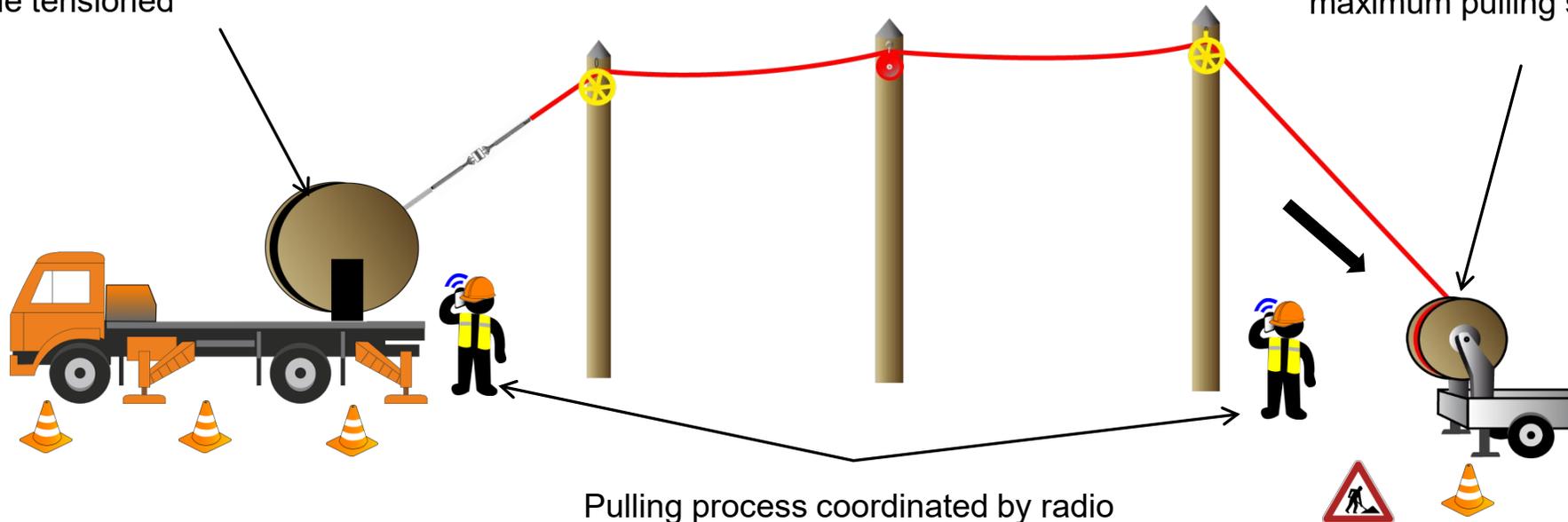
2- Junction between the pulling line and ADSS using  
two pulling socks and one swivel



## B “Static Cable Reel” method - Step 3

Cable reel rotation slightly braked to keep the pulling rope and the ADSS cable tensioned

The winch pulls the rope at a low speed (30 m/mn) with control of the maximum pulling strength force



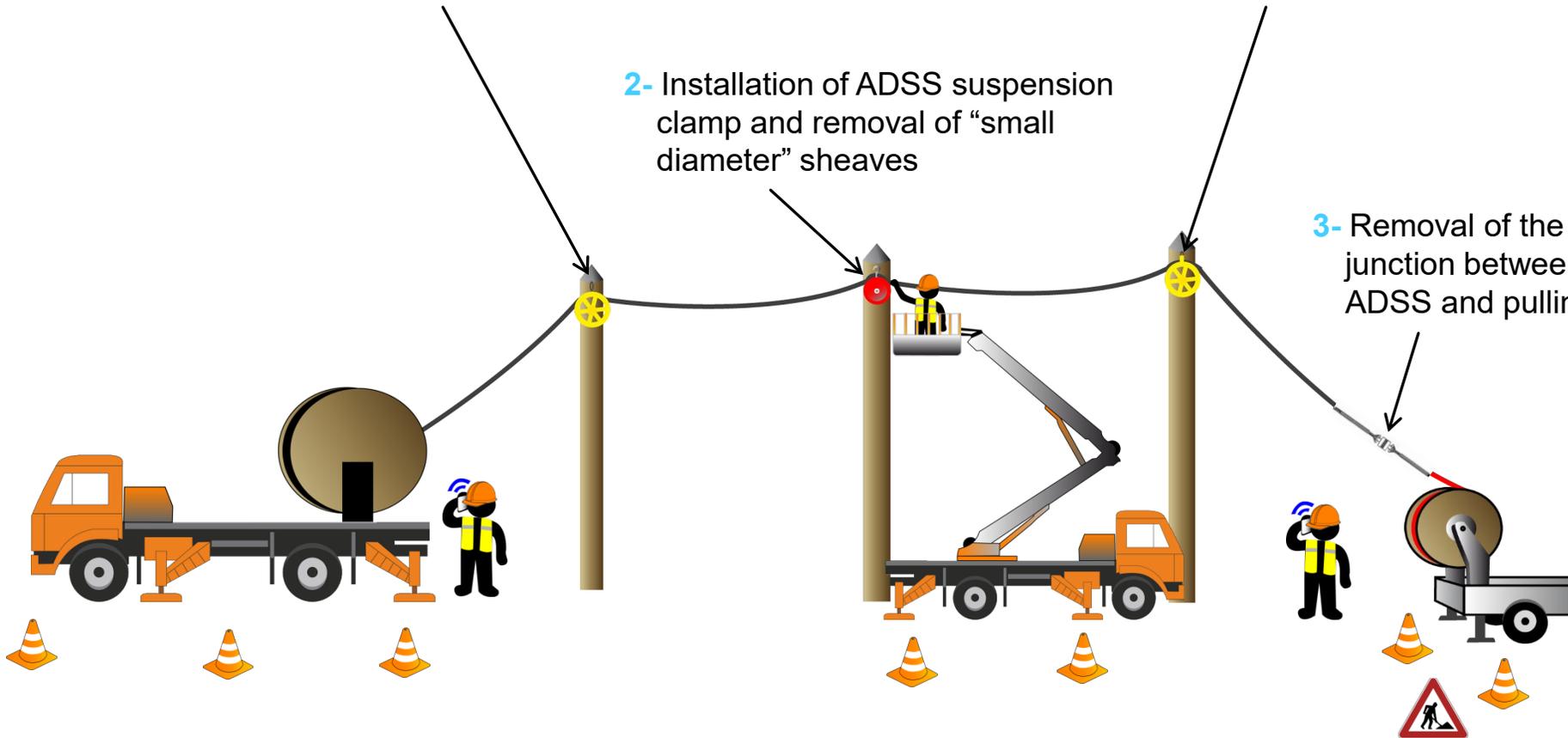
Note : On route angle poles, sheaves with a large diameter must preferably have the capability to self-level to keep the ADSS cable into the sheave groove. If not, it is necessary to install straps or other devices in order to tilt up the sheaves.

## B “Static Cable Reel” method - Step 4

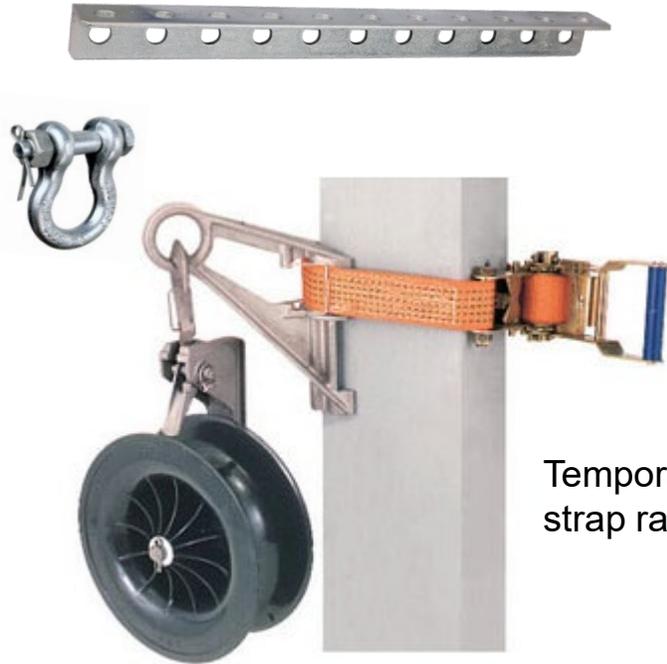
1- Installation of ADSS anchoring clamps with adjustment of cable sags, and removal of «large diameter» sheaves.

2- Installation of ADSS suspension clamp and removal of “small diameter” sheaves

3- Removal of the junction between ADSS and pulling rope



## Fixing of pulleys on poles



Temporary bracket, with strap ratched tightened

“Small diameter” (140 mm) sheave for alignment / suspension pole

Shackle or hook to fix a pulley

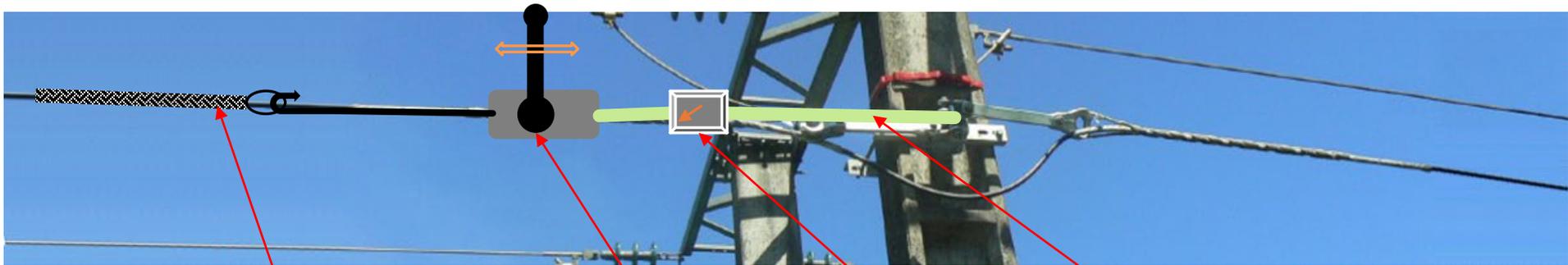


“Large diameter” (600 mm) sheave for line section extremities poles and route angle poles.

Light weight model in composite material for self leveling on route angle.

## Tensioning tools for cable sag adjustment

- The cable is pulled with the tensioner to get the needed cable sag
- Fitting of temporary anchoring device
- Loading with a load control by dynamometer
- Adjustment of the installation load or the cable sag
- Installation of the final anchoring device
- Release of the tensioner load
- Removal of the tools.



Temporary anchoring device (pulling grip sock, anchoring clamp) according to the recommendations of the cable manufacturer

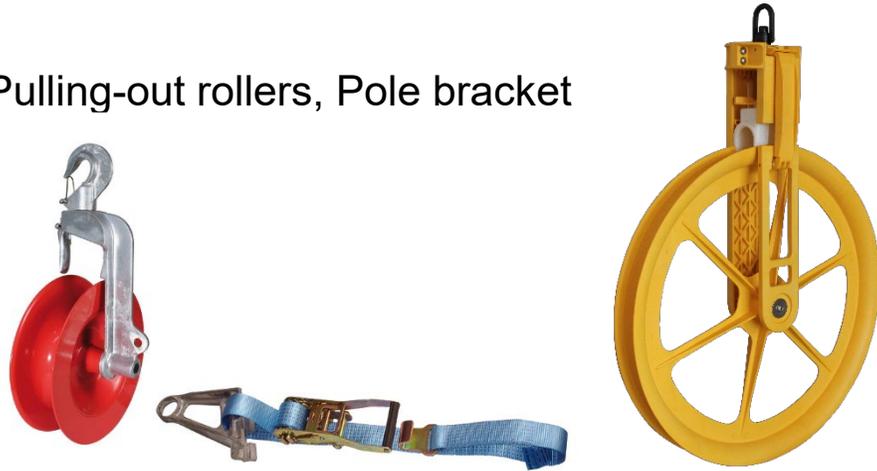
Tensioner

Dynamometer

Sling

## Installation and running-out accessories (see our catalog)

Pulling-out rollers, Pole bracket



Pulling grip sock and swivel



Tensioner 500 daN



Dynamometer

