

SECTION 1 - GENERAL DATA

GENERAL DESCRIPTION

Pole Hoist TM 1 is a component of personal protective equipment against fall from height. Device has to be used in conjunction with fall arrest equipment. Device is used to protect employees working in drainage wells, reservoirs, wells, silos, wall-mounted confined space entry flange etc. Device is designed to use with RUP 502, CRW 300 (with AT171 bracket) rescue lifting devices.

BASIC EQUIPMENT

Device is equipped with adjustable (4-positions) aluminium alloy leg. Bottom end of the leg is terminated with removable foot with rubber pads. Top end of the leg is connected with one-length jib made of aluminium alloy using galvanized and powder painted steel plates. Free end of jib is terminated with pulley made of galvanized and powder painted steel plates. Pulley wheel is made of radilon polymer with fiberglass and provides working rope guidance. Pulley top attachment point is used to connect device to the permanent structure. Pulley bottom attachment point is used for personal protection (EN 795/A - one person, TS 16415/A - two people at the same time). Jib attachment point is used for rescue lifting device installation.

PARAMETERS

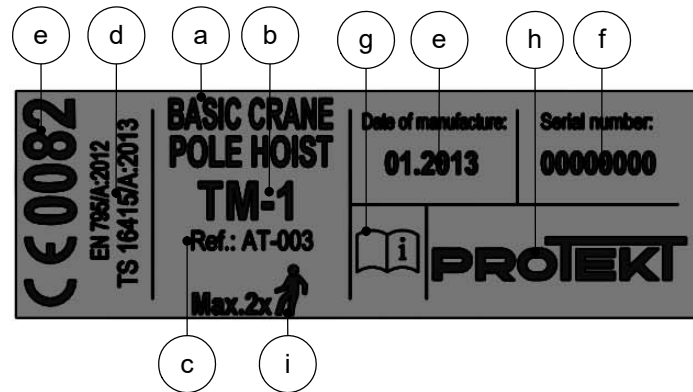
- Protection for maximum two people at the same time,
- Designed to use with RUP 502, CRW 300+AT 171 rescue lifting devices (for personal rescue purposes),
- Available 3 attachment points,
- Lightweight anodized aluminium alloy construction with galvanized and powder painted steel hardware.
- Weight: 8 kg
- Shipping dimensions: 190x22x14 cm

AVAILABLE 3 ATTACHMENT POINTS:

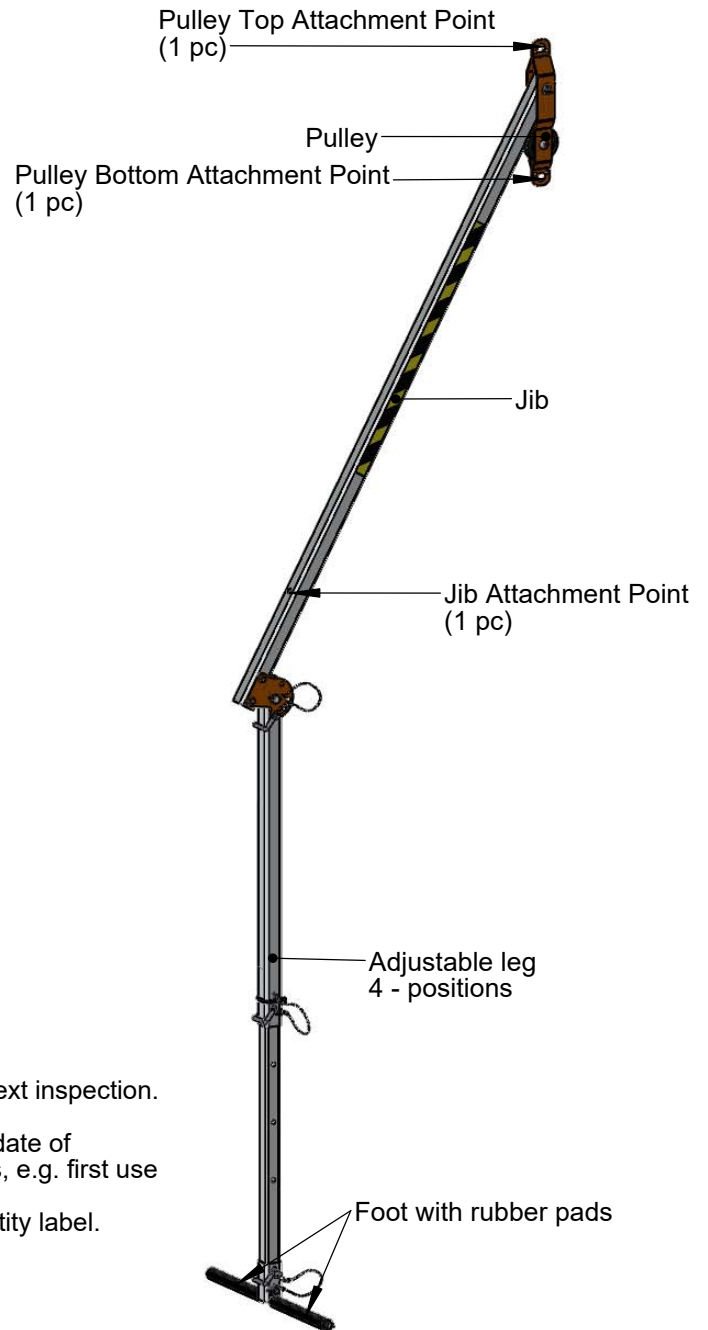
- Jib attachment point - 1 pc
- Pulley top attachment point - 1 pc
- Pulley bottom attachment point - 1 pc

CONTENT OF THE IDENTITY LABEL

- Device type.
- Model symbol.
- Reference number.
- Number/year/class of the European standard.
- Month and year of manufacture.
- Serial number of the tripod.
- Caution: read the manual.
- Marking of the manufacturer or distributor of the tripod.
- Maximum number of users permitted simultaneously.



Month and year of the manufacturer's next inspection. Don't use the device after this date. Attention: Before the first use mark the date of inspection (date of first use + 12 months, e.g. first use 01.2013 - mark inspection 01.2014). "Next inspection label" placed near identity label.



CERTIFICATION AND COMPLIANCE WITH STANDARDS

a) EN 795:2012 type A

Equipment use as a transportable temporary anchor point for one person. Not covered by the EC certificate.

b) TS 16415:2013 type A

Equipment use as a transportable temporary anchor point for two people.

Compliance with standard and document TS 16415/B:2013. Not covered by the EC certificate.

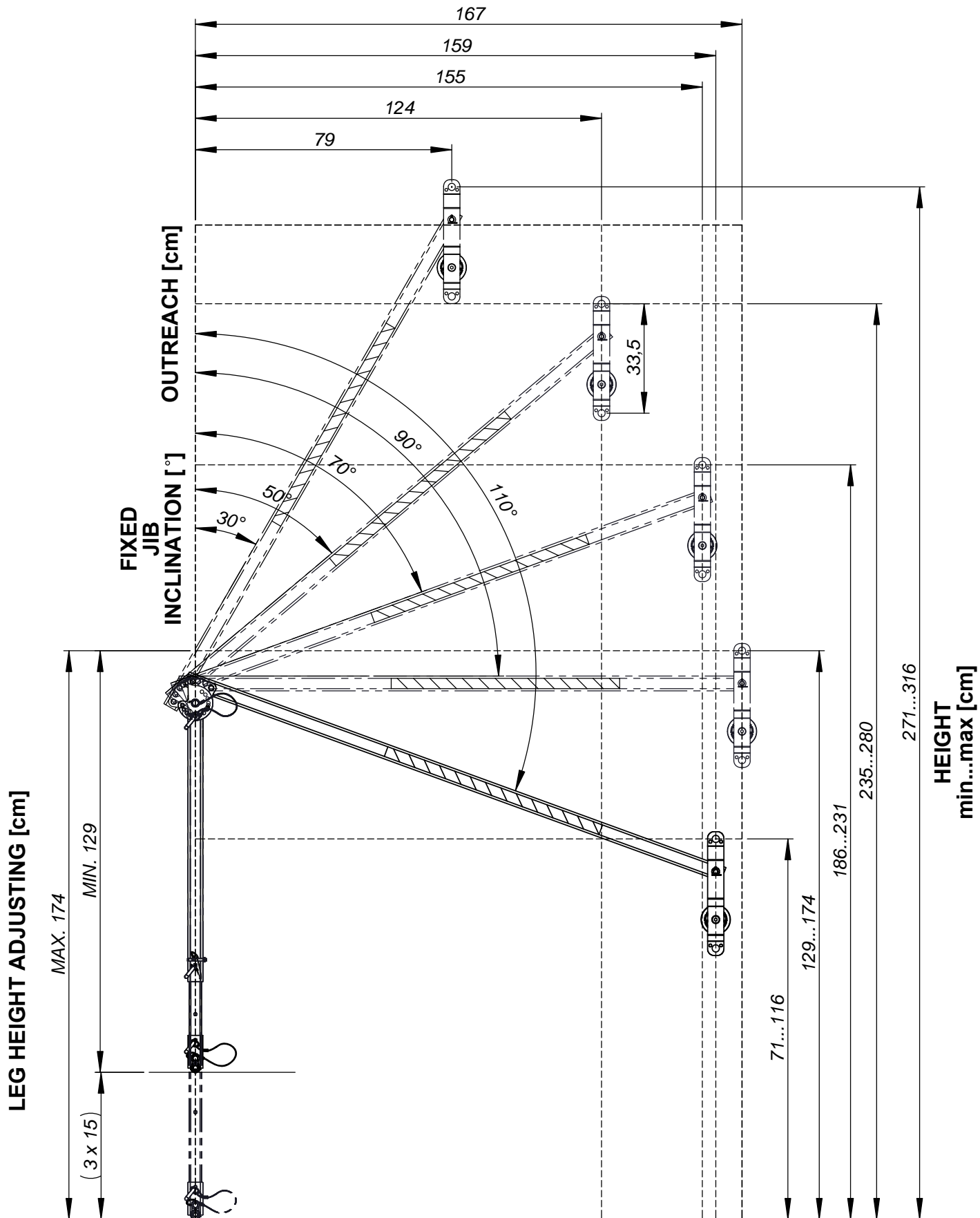
c) EN 1496:2006 type B

Equipment use with RUP 502 / CRW 300 as an rescue kit for maximum two people.

Compliance with standard and document EN 1496/B:2006. Not covered by the EC certificate.

The Notified Body involved with EC type examination and in the production control phase: APAVE SUDEUROPE SAS, CS60193, 13322 Marseille, France.

TM1 DIMENSIONS DIAGRAM

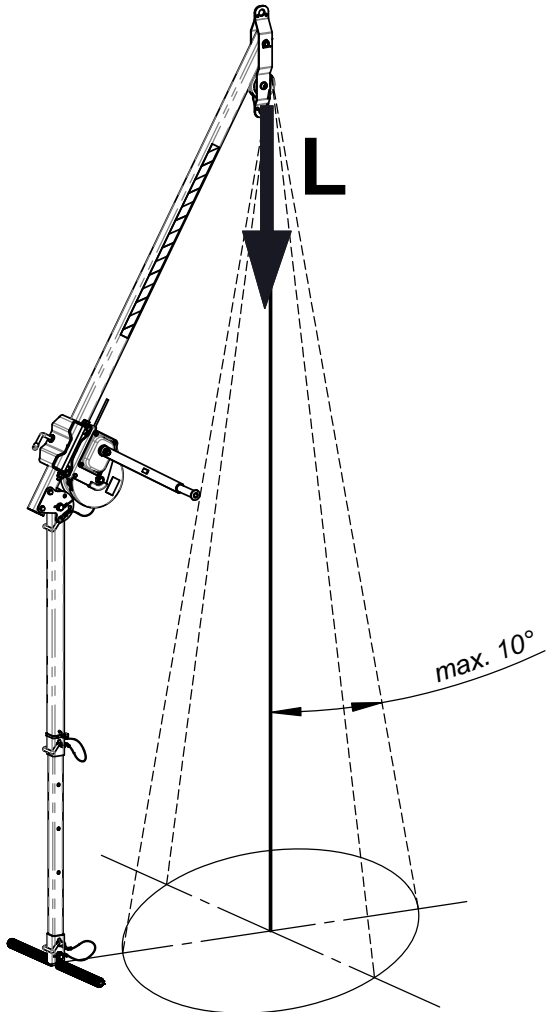


SECTION 2 - DEVICE INSTALLATION

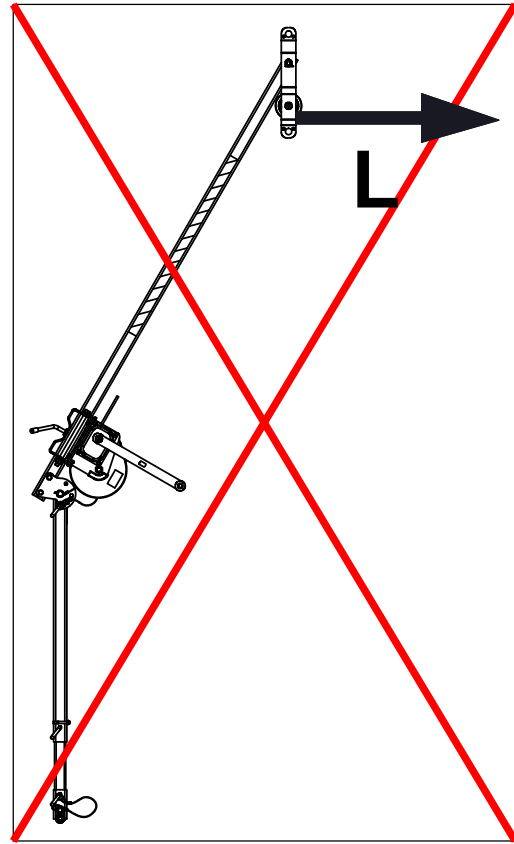
MAXIMUM LOAD TRANSMITTED FROM THE TM 1 TO THE STRUCTURE / LOADING DIRECTION

Surface, where the TM 1 basic crane was placed on and structural anchor point where device is attached must support the max. device load:

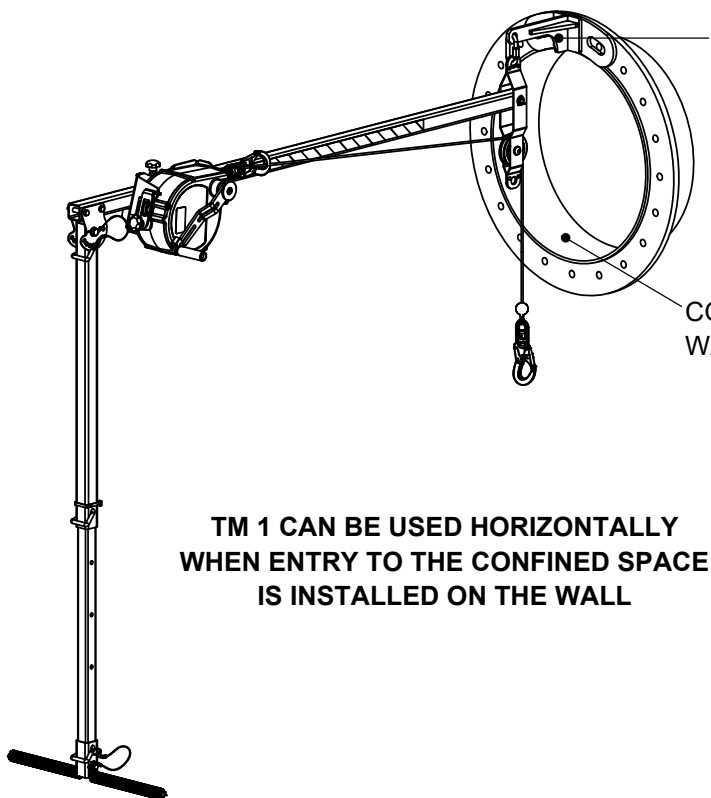
- a) during fall arresting for one person according to EN 795/A:2012 (6 kN)
- b) during fall arresting for two people according to TS 16415/A:2013 (13 kN)



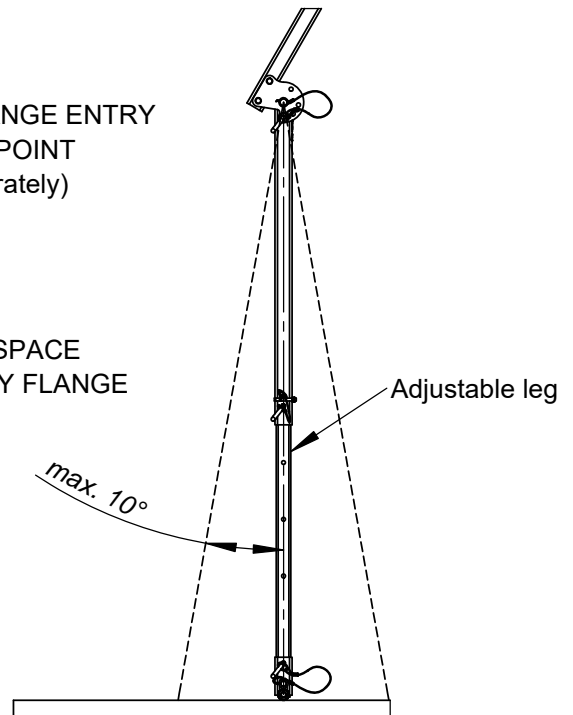
WORKING LOAD "L" CAN BE DIRECTED VERTICALLY ONLY (TOLERANCE $\pm 10^\circ$).



**CAUTION!
WORKING LOAD "L" CAN NOT BE DIRECTED HORIZONTALLY
DO NOT USE TM 1 WITH AE 320 AS END ANCHOR POINT**



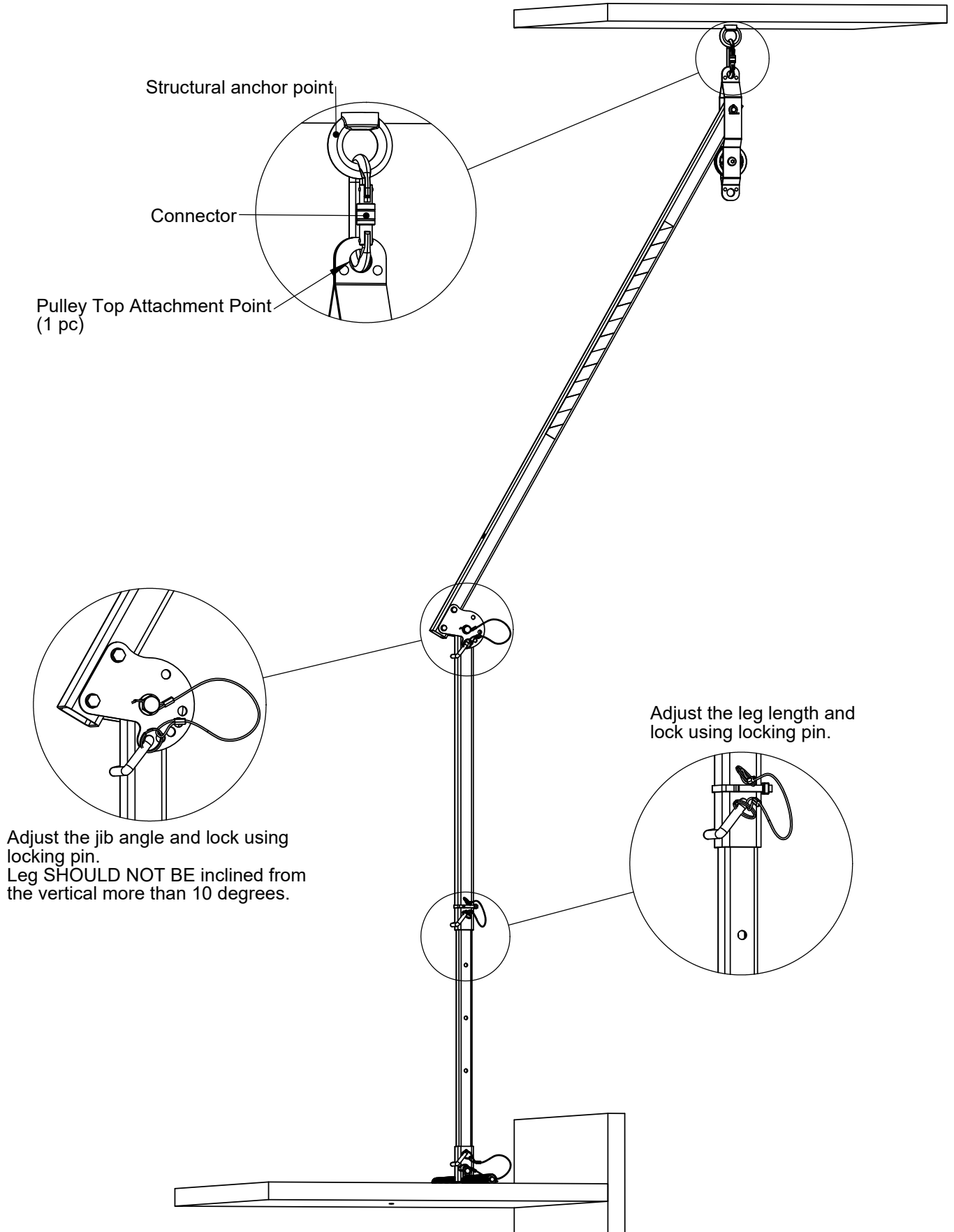
TM 1 CAN BE USED HORIZONTALLY WHEN ENTRY TO THE CONFINED SPACE IS INSTALLED ON THE WALL



ADJUSTABLE LEG MUST ALWAYS BE PERPENDICULAR TO THE GROUND (TOLERANCE $\pm 10^\circ$).

INSTALLATION TO THE STRUCTURAL ANCHOR POINT

The TM 1 Pulley Top Attachment Point should be attached to a rigid structure (structural anchor point) using Connector (recommended AZ 011 / AZ 090). The structural anchor point shall be compatible to AZ 011 / AZ 090 connectors. The structural anchor point strength should be not less than 13 kN.



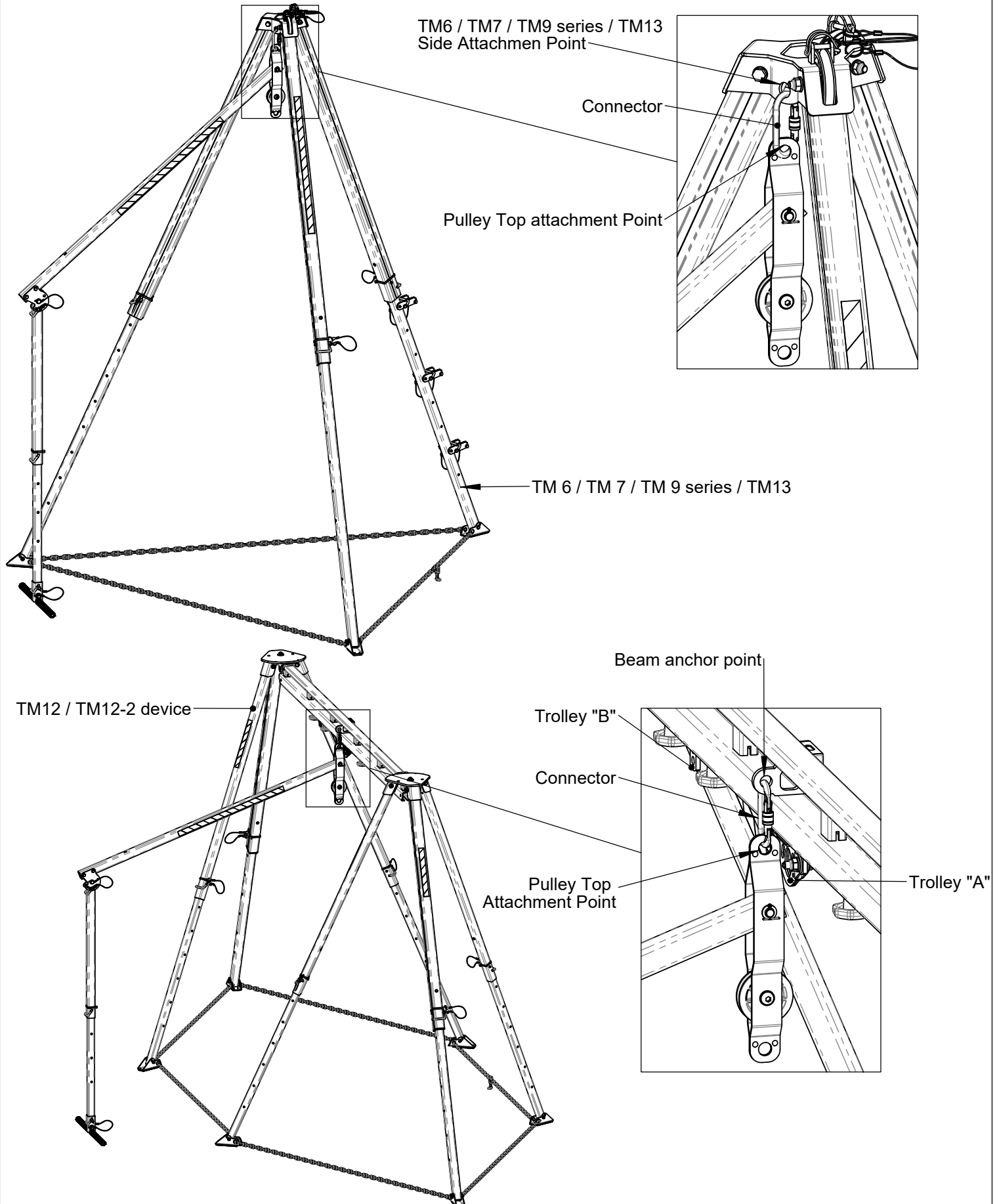
INSTALLATION TO THE SAFETY TRIPODS

TM 1 can be used with PROTEKT safety tripods: TM6, TM7, TM9 series, TM13, TM12 and TM12-2.

TM 1 Pulley Top Attachment Point should be attached:

- for TM 6 / TM 7 / TM9 series / TM13 to the tripod side attachment point
- for TM12 / TM12-2 to the: Beam anchor point and/or Trolley "A" and/or Trolley "B".

using connector (recommended AZ 011 / AZ 090). The structural anchor point shall be compatible to AZ 011 / AZ 090 connectors. The structural anchor point strength should be not less than 13 kN.

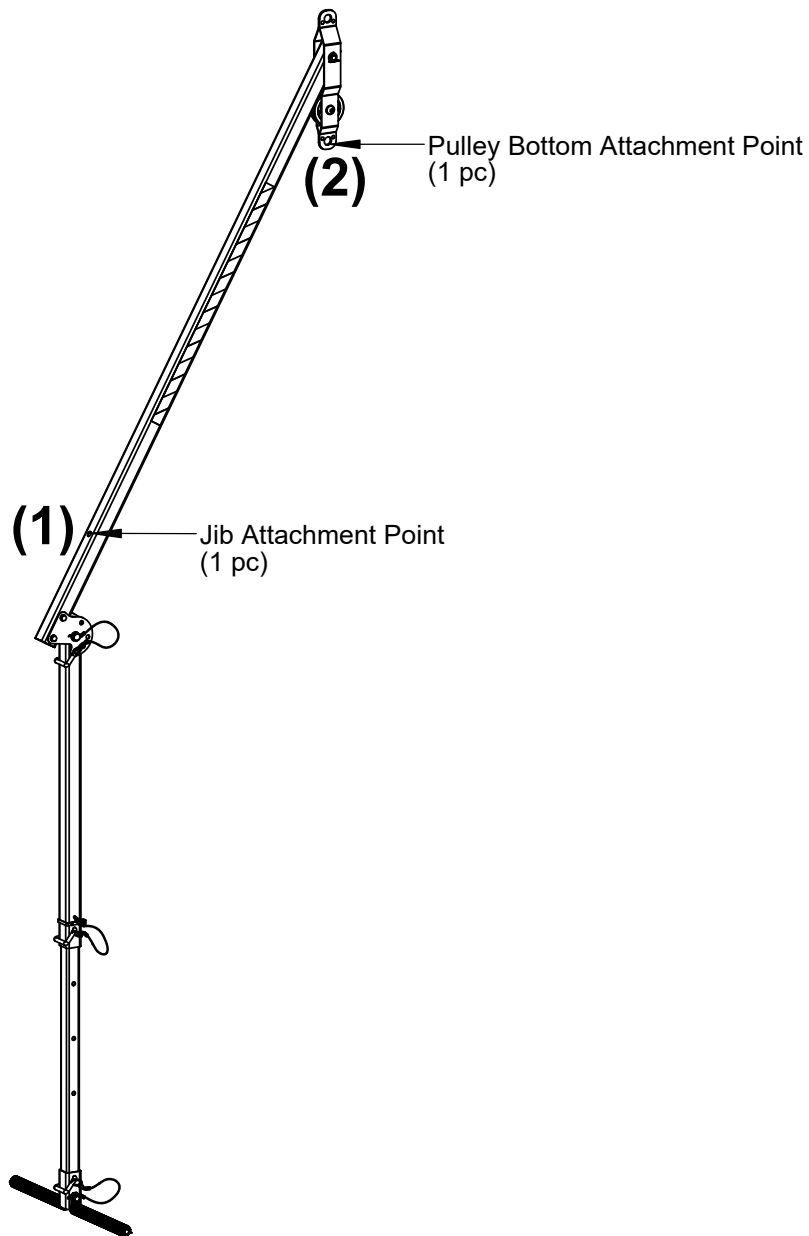


TM 12 / TM12-2 can be used with maximum two TM 1 devices at the same time.

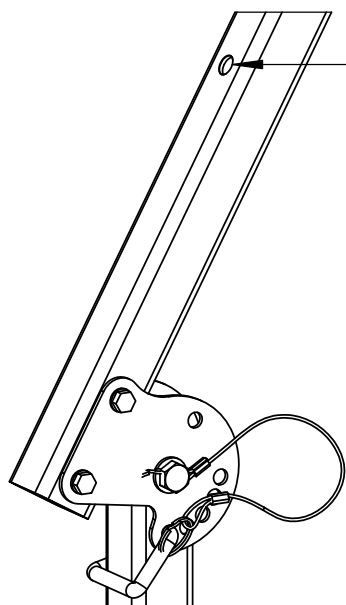
SECTION 3 PERSONAL PROTECTION ACCORDING TO EN 795/A AND TS 16415/A

TM 1 device can be used as a temporary anchorage according to EN 795/A and TS 16415/A.
TM 1 provides protection for maximum two people at the same time.

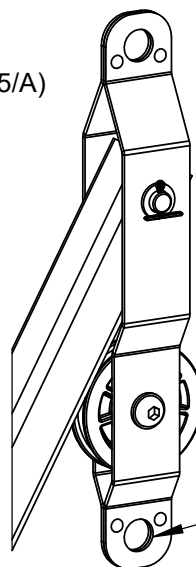
TM 1 is equipped with two attachment points



ATTACHMENT POINTS FOR PERSONAL PROTECTION



JIB ATTACHMENT POINT (1pc)
max .two people (EN 795/A and TS 16415/A)
for rescue lifting device installation



PULLEY BOTTOM ATTACHMENT POINT (1 pc)
max two people
(EN 795/A and TS 16415/A)

GENERAL PRECAUTIONS

- Maximum TWO people can be attached to the available anchor points at the same time.
- DO NOT use TM 1 safety device for more than two people at the same time.
- Anchor points designed for personal protection should ONLY be used for personal fall protection equipment and NOT for lifting equipment.
- While working PAY ATTENTION to the foot with rubber pads - it can cause accidental tripping of the worker.
- Device foot MUST ALWAYS BE placed on the firm, stable and flat ground. Ground must support the load. Adjustable leg MUST ALWAYS BE perpendicular to the ground ($\pm 10^\circ$).
- The working load "L" can be directed vertically only ($\pm 10^\circ$).
- This device can be used for evacuation/rescue purposes (lifting people from lower level to the higher level and lowering people from higher level to the lower level up to 2-meters).
- AVOID working where the user may swing and hit an object or where lines may cross or tangle with that of another worker in the area.
- Fall arrest and rescue systems used with this device MUST MEET applicable EN standards requirements (EN 795 for anchor devices; EN 362 for connectors; EN 361 for full body harnesses; EN 360 for retractable type fall arresters; EN 1496 for rescue lifting devices; EN 1497 for rescue harnesses; EN 341 for descender devices).
- Always use locking pins to lock position between leg and jib before operation.
- The Maximum Arrest Force (MAF) to which a user of a Fall Arrest System (FAS), who wears a full body harness, is exposed during an arrest of his/her fall is limited by law 6 kN in EU. The system used to protect user against fall from height must include fall protection equipment reducing the Maximum Arrest Force, acting on the user while arresting the fall, to maximum value of 6kN (e.g. fall safety energy absorber with lanyard or retractable fall arrester).
- Device can be transported and installed by one person.
- The anchor device or anchor point for the fall arrest system should always be positioned, and the work carried out in such a way, as to minimize both the potential for falls and potential fall distance. The anchor device/point should be placed above the position of the user. The shape and construction of the anchor device/point shall not allowed to self-acting disconnection of the equipment. Minimal static strength of the anchor device/point is not less than 13 kN. It is recommended to use certified and marked structural anchor point complied with EN 795/B and TS16415/B for max two people at the same time.
- DO NOT exceed Working Load Limit.

THE ESSENTIAL PRINCIPLES OF USE OF PERSONAL PROTECTIVE EQUIPMENT

- Personal Protective Equipment (PPE) shall only be used by a person trained and competent in its safe use.
- PPE must not be used by a person with medical condition that could affect the safety of the equipment user in normal and emergency use.
- A rescue plan shall be in place to deal with any emergencies that could arise during the work.
- It is forbidden to make any alterations or additions to the equipment without the manufacturer's prior written consent.
- Any repair shall only be carried out by equipment manufacturer or his certified representative.
- PPE shall not be used outside its limitations, or for any purpose other than that for which it is intended.
- PPE should be a personal issue item.
- Before use ensure about the compatibility of items equipment assembled into fall arrest system. Periodically check connecting and adjusting of the equipment components to avoid accidental loosening or disconnecting of the components.
- It is forbidden to use combinations of items of equipment in which the safe function of any one item is affected by or interferes with the safe function of another.
- It is essential for the safety of the user that if the product is re-sold outside the original country of destination the reseller shall provide instruction for use, for maintenance, for periodic examination and for repair in language of the country in which the product is to be sold.
- A full body harness (conforming EN 361) is the only acceptable body holding device that can be used in a fall arrest system.
- On full body harness use only attaching points marked with big letter "A" to attach a fall arrest system.
- It is obligatory to verify the free space required beneath the user at the workplace before each occasion of use the fall arrest system, so that, in the case of a fall, there will be no collision with the ground or other obstacle in the fall path. The required value of the free space should be taken from instruction manual of used equipment.
- There are many hazards that may affect the performance of the equipment and corresponding safety precautions that have to be observed during equipment utilization, especially:
 - trailing or looping of lanyards or lifelines over sharp edges,
 - any defects like cutting, abrasion, corrosion,
 - climatic exposure,
 - pendulum falls,
 - extremes of temperature,
 - chemical reagents,
 - electrical conductivity.

INSPECTION

Before each use of personal protective equipment it is obligatory to carry out a pre-use check of the equipment, to ensure that it is in a serviceable condition and operates correctly before it is used.

During pre-use check it is necessary to inspect all elements of the equipment in respect of any damages, excessive wear, corrosion, abrasion, cutting or incorrect acting, especially take into consideration:

- in full body harnesses and belts - buckles, adjusting elements, attaching points, webbings, seams, loops;
- in energy absorbers - attaching loops, webbing, seams, casing, connectors;
- in textile lanyards or lifelines or guidelines - rope, loops, thimbles, connectors, adjusting elements, splices;
- in steel lanyards or lifelines or guidelines - cable, wires, clips, ferrules, loops, thimbles, connectors, adjusting elements;
- in retractable fall arresters - cable or webbing, retractor and brake proper acting, casing, energy absorber, connector;
- in guided type fall arresters - body of the fall arrester, sliding function, locking gear acting, rivets and screws, connector, energy absorber;
- in connectors - main body, rivets, gate, locking gear acting;
- in tripods - legs, safety pins, eye bolts, feet, chain, connecting elements.

PERIODIC INSPECTION

After every 12 months of utilization, personal protective equipment must be withdrawn from use to carry out periodical detailed inspection. The periodic inspection must be carried out by a competent person for periodic inspection. The periodic inspection can be carried out also by the manufacturer or his authorized representative. In case of some types of the complex equipment e.g. some types of retractable fall arresters the annual inspection can be carried out only by the manufacturer or his authorized representative.

During this inspection will be established admissible time of the device use till next manufacturer's inspection.

The result of the inspection must be recorded in Identity Card.

Regular periodic inspections are the essential for equipment maintenance and the safety of the users which depends upon the continued efficiency and durability of the equipment.

During periodic inspection it is necessary to check the legibility of the equipment marking.

ADMISSIBLE TIME OF USE

The device can be used for 5 years counting from a date of putting the tripod into operation. After this period the tripod must be withdrawn from use to carry out manufacturer's detailed inspection.

The manufacturer's inspection can be carried out by:

- manufacturer
- person recommended by manufacturer
- company recommended by manufacturer.

During this inspection will be established admissible time of tripod use till next manufacturer's inspection and recorded in Identity Card.

WITHDRAWAL FROM USE

Personal protective equipment must be withdrawn from use immediately when any doubt arise about its condition for safe use and not used again until confirmed in writing by equipment manufacturer or his representative after carried out the detailed inspection.

WITHDRAWN FROM USE AFTER ARRESTING A FALL

Device must be withdrawn from use immediately when it have been used to arrest a fall. After that must be carried out detailed manufacturer's inspection of the tripod.

The manufacturer's inspection can be carried out by:

- manufacturer
- person recommended by manufacturer
- company recommended by manufacturer.

During this inspection will be established if the tripod can be longer used and will be define the admissible time of tripod use till next manufacturer's inspection and recorded in Identity Card.

TRANSPORTATION

Personal protective equipment must be transported in the package (e.g.: bag made of moisture-proof textile or foil bag or cases made of steel or plastic) to protect in against damage or moisture.

MAINTENANCE AND STORAGE

The equipment can be cleaned without causing adverse effect on the materials in the manufacture of the equipment. For textile products use mild detergents for delicate fabrics, wash by hand or in a machine and rinse in water. Plastic parts can be cleaned only with water. When the equipment becomes wet, either from being in use or when due cleaning, it shall be allowed to dry naturally, and shall be kept away from direct heat. In metallic products some mechanic parts (spring, pin, hinge, tec.) can be regularly slightly lubricated to ensure better operation. Other maintenance and cleaning procedures should be adhered to detailed instructions stated in the manual of the equipment.

Personal protective equipment should be stored loosely packed, in a well-ventilated place, protected from direct light, ultraviolet degradation, damp environment, sharp edges, extreme temperatures and corrosive or aggressive substances.

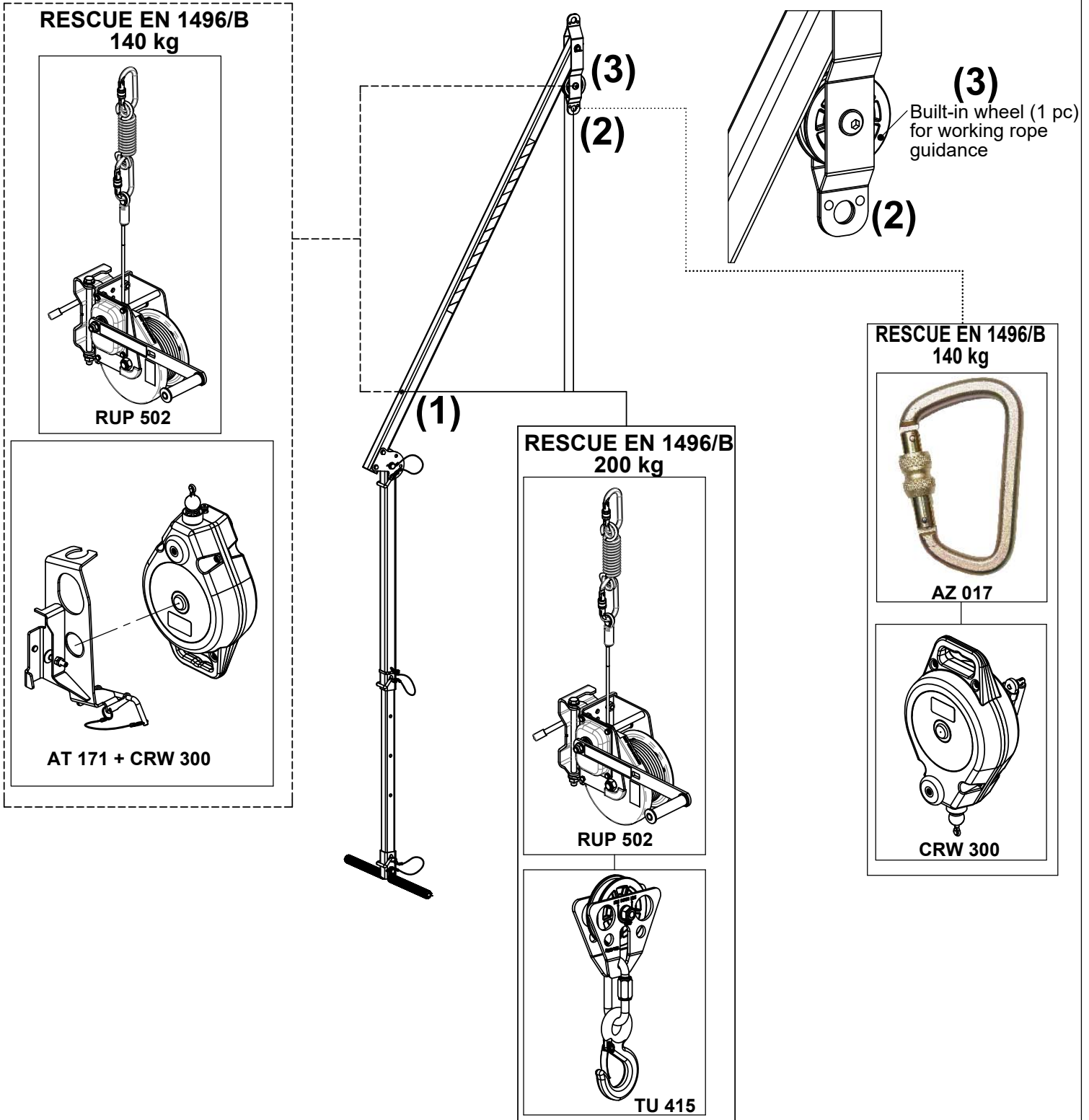
SECTION 4 - RESCUE ACCORDING TO EN 1496/B

GENERAL PRECAUTIONS FOR RESCUE:

- Secondary fall arrest system (conforming EN 363) must be used when working with the TM 1 and RUP 502.
- Fall arrest and rescue systems used with this device MUST MEET applicable EN standards requirements (EN 795 for anchor devices; EN 362 for connectors; EN 361 for full body harnesses; EN 360 for retractable type fall arresters; EN 1496 for rescue lifting devices; EN 1497 for rescue harnesses; EN 341 for descender devices).
- For rescue purposes with RUP 502 rescue lifting device always use SDW energy absorber (component of RUP 502 lifting device).
- During installing rescue lifting device RUP 502 or CRW 300 (with AT 171 fixing adapter) locking pin MUST BE embedded in locking hole. Only then rescue lifting device can be safely and firmly installed on the device jib.

USAGE TM 1 BASIC CRANE FOR RESCUE PURPOSES

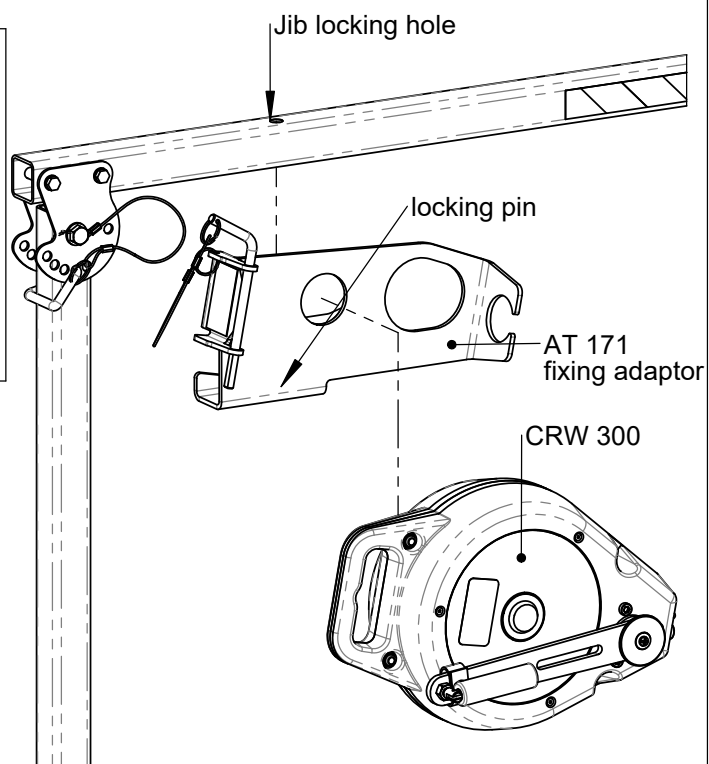
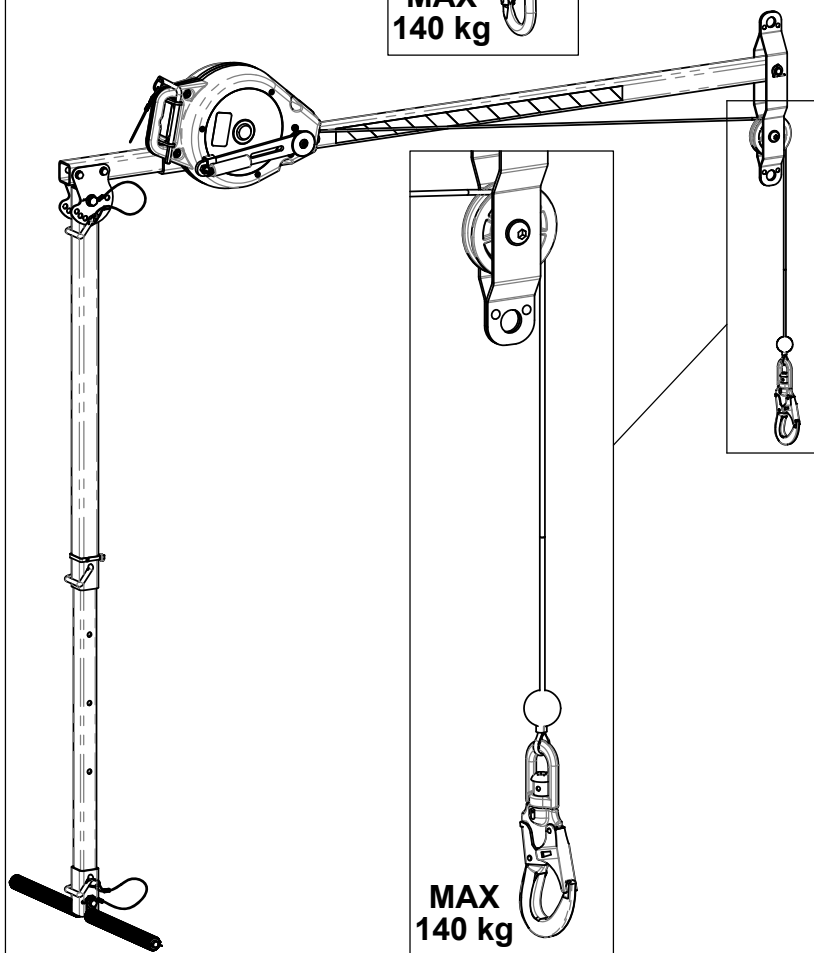
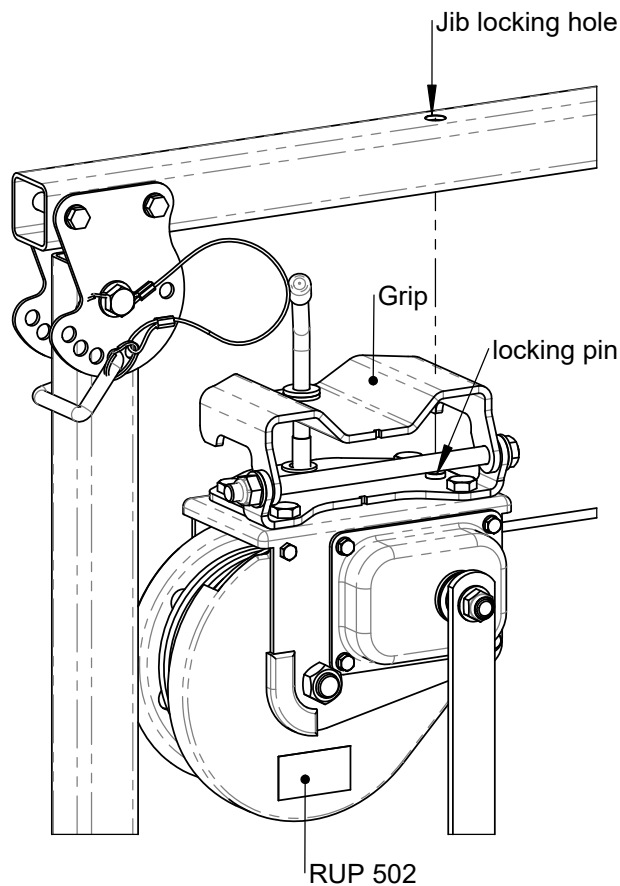
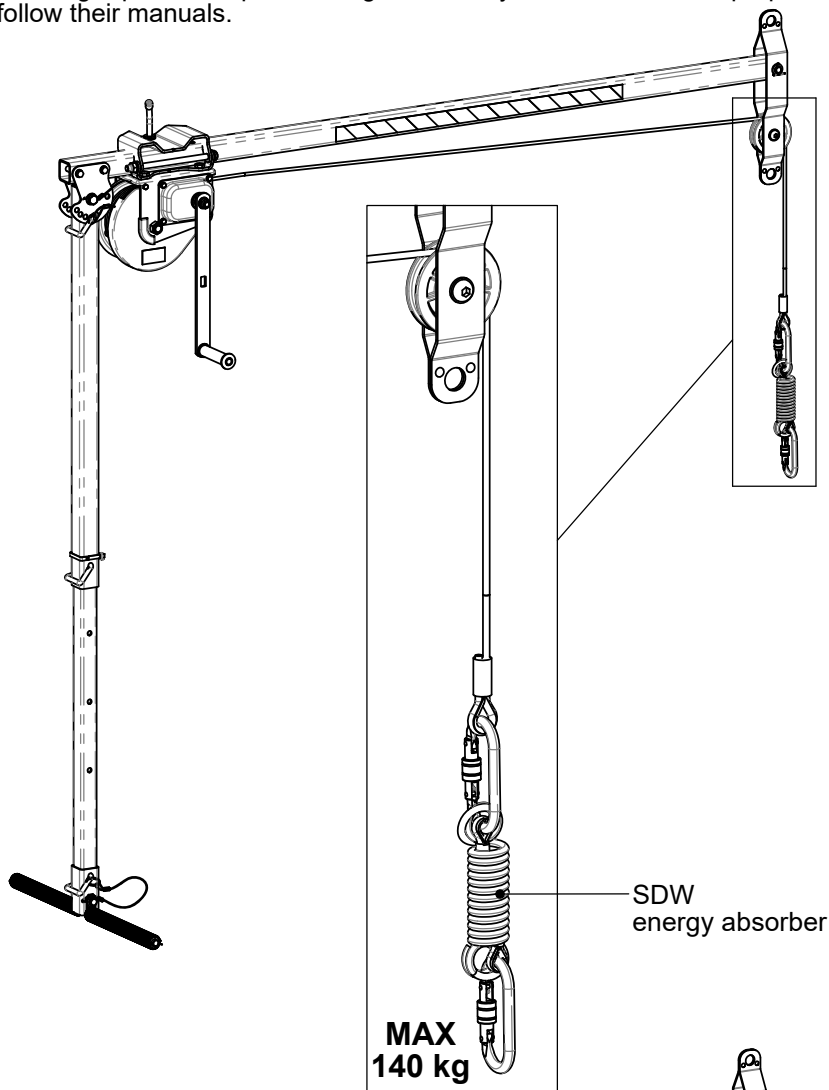
TM 1 basic crane can be used for rescue purposes in conjunction with RUP 502 and CRW 300 rescue lifting devices.



TM 1 + equipment Standard	RUP 502	RUP 502 + TU 415	AT 171 + CRW 300	AZ 017 + CRW 300
Attachment point(s) in use	(1) (3)	(1) (2) (3)	(1) (3)	(2)
Max. number of users at the same time	2	2	1	1
Working Load Limit	140 kg	200 kg	140 kg	140 kg

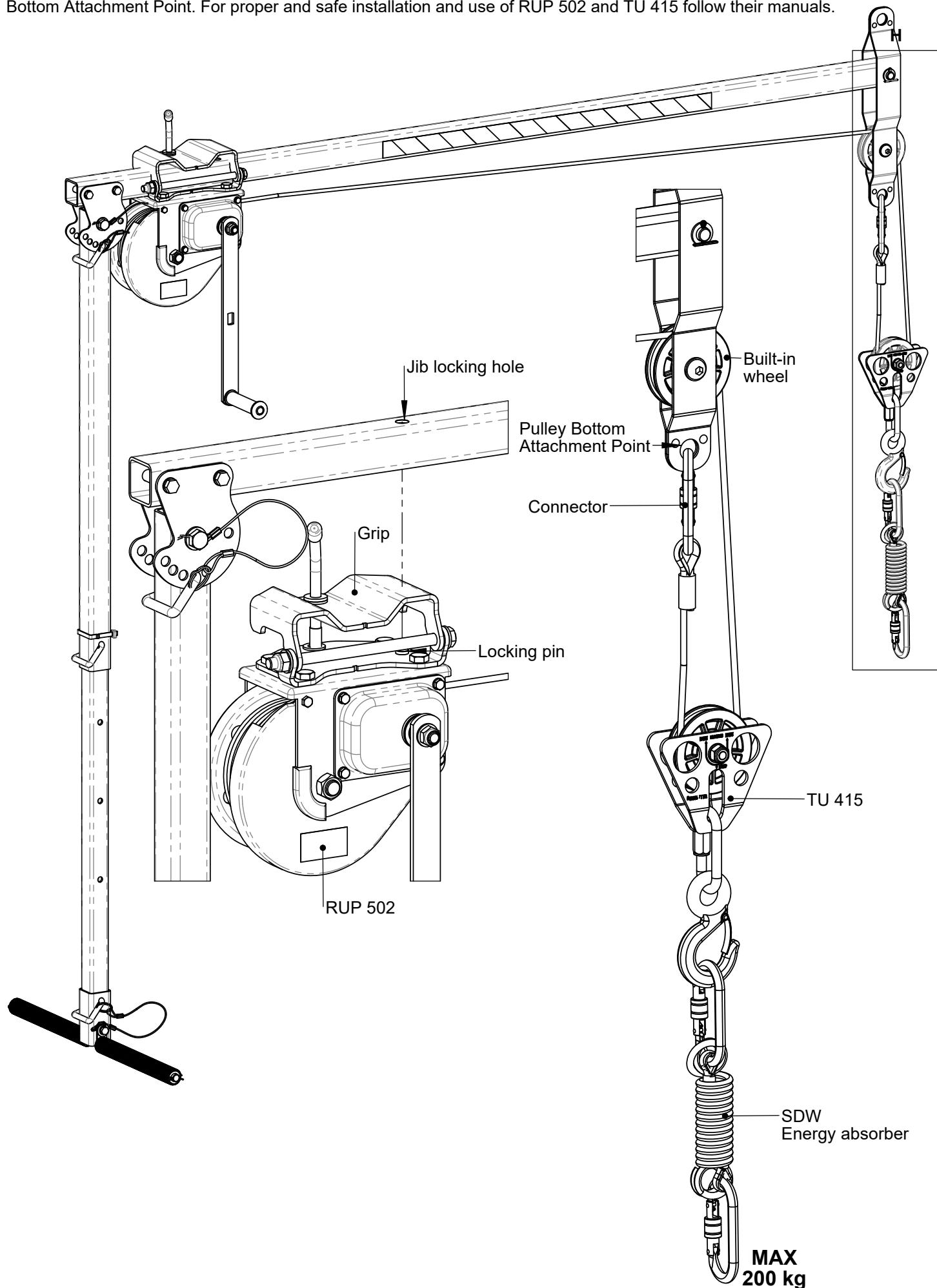
INSTALLING RUP 502 AND CRW 300 RESCUE LIFTING DEVICES (for 140 kg)

Device can be used with RUP 502 and CRW 300 rescue lifting devices. RUP 502 and CRW 300 should be installed on the jib. The grip of the RUP 502 and fixing adapter AT 171 of CRW 300 should be fastened on the locking hole situated on the jib profile. Working rope should pass through the Pulley built-in wheel. For proper and safe installation and use of RUP 502 and CRW 300 follow their manuals.



INSTALLING RUP 502 WITH TU 415 BLOCK (for 200 kg)

Device can be used with RUP 502 and TU 415 block for lifting 200 kg. RUP 502 should be installed on the jib. The grip of the RUP 502 should be fastened on the locking hole situated on the jib profile. Working rope should pass through the Pulley built-in wheel. TU415 should be installed on the working rope. End of the working rope should be fastened using connector to Pulley Bottom Attachment Point. For proper and safe installation and use of RUP 502 and TU 415 follow their manuals.



NOTES

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IDENTITY CARD

IT IS RESPONSIBILITY OF THE USER ORGANISATION TO PROVIDE THE IDENTITY CARD AND TO FILL IN THE DETAILS REQUIRED. THE IDENTITY CARD SHOULD BE FILLED IN ONLY BY COMPETENT PERSON RESPONSIBLE FOR PROTECTIVE EQUIPMENT. THE IDENTITY CARD SHOULD BE FILLED IN BEFORE THE FIRST USE OF THE EQUIPMENT. ANY INFORMATION ABOUT THE EQUIPMENT LIKE: PERIODIC INSPECTIONS, REPAIRS, REASONS OF EQUIPMENT'S WITHDRAWN FROM USE SHALL BE NOTED. THE IDENTITY CARD SHOULD BE STORED DURING A WHOLE PERIOD OF EQUIPMENT UTILIZATION. DO NOT USE THE EQUIPMENT WITHOUT THE IDENTITY CARD.

MODEL AND TYPE OF EQUIPMENT	
REF. NUMBER	
SERIAL NUMBER	
DATE OF MANUFACTURE	
DATE OF PURCHASE	
DATE OF FIRST USE	
USER NAME	

PERIODIC EXAMINATION AND REPAIR HISTORY

	DATE	REASON FOR SERVICING / REPAIR	REPAIRS CARRIED OUT	NAME AND SIGNATURE OF COMPETENT PERSON	DATE OF NEXT EXAMINATION
1					
2					
3					
4					
5					
6					
7					
8					
9					

PRODUCER:

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