



ALUQUAD ALUMINIUM QUADRUPOD STAND

| | | |
|----------|------------|--|
| EN 795/B | TS 16415/B | |
|----------|------------|--|

Notified body supervising the manufacture of equipment:

(Notified body supervising the manufacture of the equipment):

**APAVE EXPLOITATION FRANCE SAS (n°0082),
6 Rue du Général Audran, 92412 COURBEVOIE cedex FRANCE**

Notified body issuing the certificate:

EU-CERT (n° 2984)

ul. Karola Szymanowskiego12/U6 80-280 Gdańsk

CERTIFICATE NUMBER:





CONTENTS

| | | |
|--------|---|----|
| 1. | CHAPTER 1 – GENERAL INFORMATION..... | 4 |
| 1.1. | DESCRIPTION..... | 4 |
| 1.2. | INTENDED USE..... | 4 |
| 1.2.1. | Load handling only..... | 4 |
| 1.2.2. | Rescue and individual protection only..... | 4 |
| 1.3. | GENERAL VIEW / BASIC EQUIPMENT ACCESSORIES..... | 5 |
| 1.4. | WORKING LOAD AND STRENGTH..... | 6 |
| 1.4.1. | OVERVIEW..... | 6 |
| 1.4.2. | FOR INDUSTRIAL EQUIPMENT..... | 6 |
| 1.4.3. | FOR PERSONAL PROTECTIVE EQUIPMENT (PPE)..... | 6 |
| 1.4.4. | FOR EVACUATION EQUIPMENT..... | 6 |
| 1.4.5. | IN HIGH ALTITUDE RESCUE OPERATIONS..... | 6 |
| 1.5. | GENERAL GUIDELINES..... | 7 |
| 1.5.1. | INSPECTION BEFORE FIRST USE..... | 7 |
| 1.5.2. | INSPECTION BEFORE USE..... | 7 |
| 1.5.3. | MAXIMUM USEFUL LIFE / REGULAR INSPECTION..... | 7 |
| 1.5.4. | WARRANTY..... | 7 |
| 1.5.5. | MAINTENANCE / STORAGE / REPAIRS..... | 7 |
| 1.5.6. | DECOMMISSIONING..... | 8 |
| 1.5.7. | TRANSPORT..... | 8 |
| 1.6. | GENERAL PRECAUTIONS..... | 8 |
| 1.7. | ALUQUAD - WORKING DIMENSIONS..... | 9 |
| 1.8. | ALUQUAD LABELLING..... | 10 |
| 1.8.1. | GENERAL MARK..... | 10 |
| 1.8.2. | BEAM MARK..... | 10 |
| 2. | CHAPTER 2 – DEVICE INSTALLATION..... | 11 |
| 2.1. | ALUQUAD INSTALLATION - BASIC VERSION..... | 11 |
| 2.2. | LIFTING EQUIPMENT INSTALLATION..... | 19 |
| 2.2.1. | RUP 502-U HOIST INSTALLATION..... | 19 |
| 2.2.2. | RUP504 ELECTRIC HOIST INSTALLATION – VARIANT “A”..... | 19 |
| 2.2.3. | RUP504 ELECTRIC HOIST INSTALLATION – VARIANT “B”..... | 20 |
| 2.3. | HOIST WORKING LINE INSTALLATION..... | 21 |
| 3. | CHAPTER 3 – LOAD HANDLING..... | 22 |
| 3.1. | LOAD CAPACITY..... | 22 |
| 3.2. | LAYOUT DRAWING INCLUDING THE ATTACHED HOIST..... | 22 |
| 3.3. | GENERAL PRECAUTIONS FOR LOAD HANDLING..... | 23 |
| 3.4. | KSB100-350-000 LOAD TRUCK – DIMENSIONS..... | 23 |



- 3.5. LOAD TRUCK LABELLING..... 24
- 3.6. ALUQUAD BEAM SAG AT THE WORKING LOAD LIMIT (WLL)24
- 4. CHAPTER 4 – INDIVIDUAL PROTECTION ACCORDING TO THE EN795 STANDARD AND THE TS16415 DOCUMENT (PPE)25
 - 4.1. SECURITY TRUCK LABELLING (PPE)..... 25
 - 4.2. PERSONAL PROTECTION RULES:..... 26
 - 4.3. GENERAL PRECAUTIONS..... 26
 - 4.4. BASIC RULES OF USE FOR PERSONAL PROTECTIVE EQUIPMENT.....26
 - 4.5. INSPECTION..... 27
 - 4.6. PERIODIC INSPECTION..... 27
 - 4.7. SERVICE LIFE..... 27
 - 4.8. DECOMMISSIONING..... 28
 - 4.9. DECOMMISSIONING AFTER A FALL ARREST..... 28
 - 4.10. TRANSPORT.....28
 - 4.11. MAINTENANCE AND STORAGE..... 28
- 5. CHAPTER 5 – USE FOR RESCUE PURPOSES ACCORDING TO EN 1496/B (PPE)..... 29
 - 5.1. GENERAL PRECAUTIONS (USE FOR RESCUE PURPOSES):..... 29
 - 5.2. ALUQUAD USE FOR RESCUE PURPOSES.....29
 - 5.3. USE OF LIFTING EQUIPMENT AS EQUIPMENT PROTECTING AGAINST FALLS FROM HEIGHTS..... 30
 - 5.4. CRW200 RESCUE HOIST INSTALLATION.....30
 - 5.5. CRW300 RESCUE HOIST INSTALLATION.....31



1. CHAPTER 1 – GENERAL INFORMATION

1.1. DESCRIPTION

ALUQUAD is a light, modular and general use device for use in systems protecting against falls from heights (according to the EN 795/B standard and the TS 16415/B document), evacuation (according to the EN 1496/B standard) and for the lifting of goods (according to the Machinery Directive). It is made of a reinforced aluminium and steel alloy which guarantees high strength and low weight. The working beam of the device (available in lengths between 2 and 6 metres) is connected using two heads with 4 telescopic support legs. The assembly of the device is presented in Chapter 2.

ALUQUAD ensures protection of up to 3 persons simultaneously.

The beam cooperates with a load truck which may be used to attach the equipment protecting against falls from heights or as an assembly point for industrial hoists. The standard equipment also allows for the installation of evacuation equipment (e.g. of the RUP and CRW series) between two legs of the device (at a side), which ensures easy access to it during work.

In addition to quick and stable leg and beam connection, each of the heads is provided with a series of holes enabling attachment of the required equipment.

Each of the available anchor points can be used by up to three persons simultaneously.

The telescopic aluminium leg enables height adjustment of the device. The leg is locked using a solid cotter pin protected against falling out accidentally. Each leg ends with a large foot made of stainless steel, with an anti-slip rubber pad riveted onto it. The foot is attached to the leg using a cotter pin, enabling its quick removal during transport.

Main technical specifications:

Beam: 2 / 3 / 4 / 5 / 6 metres

Working height "under the beam" (min...max): 1.47×2.40 m

Working Load Limit (WLL): 500 kg (2, 3, 4 m beams) / 300 kg (5, 6 m beams)

Minimum Breaking Strength (MBS): 14 kN

Safety coefficient for load handling: 2.8:1.

Safety coefficient for personal protection: 10:1.

Protection for up to 3 people simultaneously.

Weight of complete unit: 57 kg.

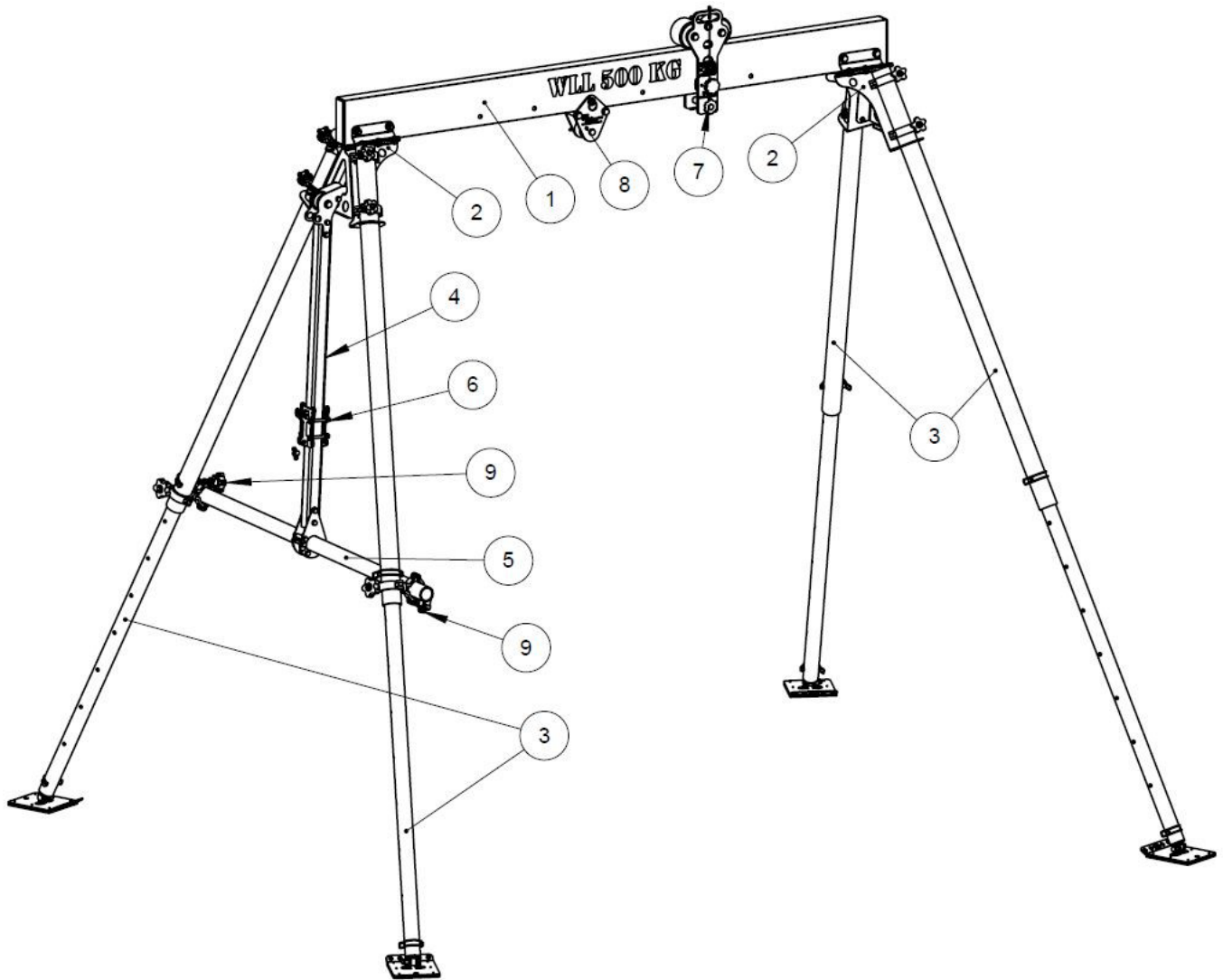
1.2. INTENDED USE

1.2.1. Load handling only

The ALUQUAD device may be used to lift/lower loads while retaining the adequate working load limit (WLL - which is always specified on the beam) using chain winches, RUP series devices and other hoists. Load handling – see Chapter 3.

1.2.2. Rescue and individual protection only.

The ALUQUAD device may be used for rescue purposes and purposes related to personal protective as an element of personal protective equipment against falls from a height. Loads may not be lifted/lowered during rescue operations. A RUP and/or CRW series hoist should be used for rescue purposes. An internal truck should be used for the purpose of personal protection. Rescue purposes – Chapter 6. Personal protection – Chapter 4

**1.3. GENERAL VIEW / BASIC EQUIPMENT ACCESSORIES****Main accessories of an ALUQUAD device:**

1. RX225-BEAM-xxx - Beam (where xxx is the length in cm 200 / 300 / 400 / 500 / 600 cm) – 1 pc.
2. RX225-006-000 - Steel head – 2 pcs.
3. RX225-005-000 - Telescopic leg (2 x 1.5 m) with a large stainless steel foot – 4 pcs.
4. RX225-007-000 - Winch base – Rod with a reel guiding the working line – 1 pc.
5. RX225-007-002 - Winch base – horizontal beam – 1 pc.
6. RX225-008-000 (RX225-UB) – Multi-purpose winch fixture – 1 pc.
7. KSB100-350-000 – Load truck – 1 pc.
8. KSB100-310 – Reel guiding the working line, fixed on the beam – 1 pc.
9. SPC002-000-000 – 60 mm/48.3m m pipe connector with a plastic knob – 2 pcs.

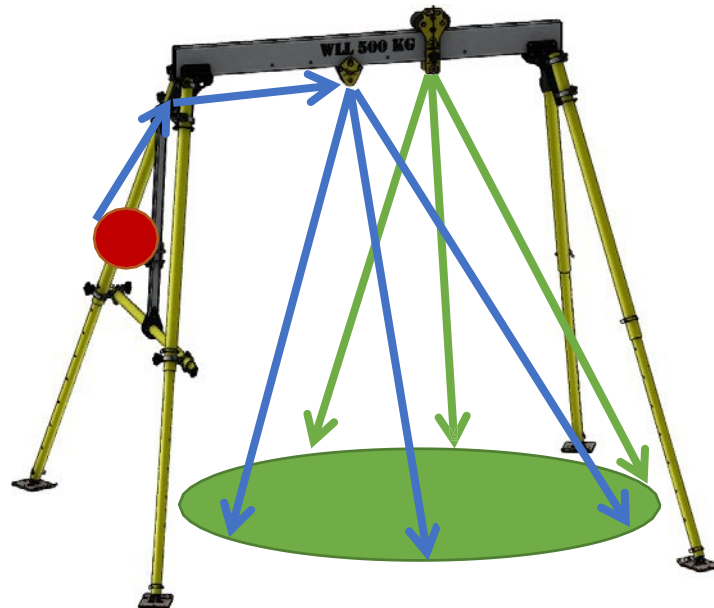


1.4. WORKING LOAD AND STRENGTH

1.4.1. OVERVIEW

Minimum Breaking Strength (MBS): 14 kN.

The equipment can be loaded with working force in a vertical downward direction in the space bounded by the legs of it.



The maximum load that could be transmitted in service from the device to the static structure – 10 kN.

If the device is used as part of a fall arrest system, the user must be equipped with an element that limits the maximum dynamic forces acting on him/her during fall arrest to a maximum of 6kN.

1.4.2. FOR INDUSTRIAL EQUIPMENT

installed on the winch base using an RX225-UB fixture and/or on the load truck:

Working Load Limit (WLL): 500 kg (2, 3, 4 m beams) / 300 kg (5, 6 m beams)

Safety factor (SF): 2.8:1.

1.4.3. FOR PERSONAL PROTECTIVE EQUIPMENT (PPE)

fixed to anchoring points available on the heads:

Maximum of 3 people simultaneously connected to one anchor point.

In accordance with the requirements of EN795/B and the TS16415/B document, the strength of the device is min. 14 kN for each anchor point.

1.4.4. FOR EVACUATION EQUIPMENT

installed on the winch base using the RX225-UB fixture (RX255-008-000):

Working Load Limit (WLL): 140 kg

Safety factor (SF): 10:1.

The working load of the escape device used must not exceed 140 kg.

1.4.5 IN HIGH ALTITUDE RESCUE OPERATIONS

using a set of blocks with a gear ratio (e.g. 4:1) installed at one of the available anchor points on the heads or on the load truck.

Maximum of 3 people simultaneously connected to one anchor point.

In accordance with the requirements of EN795/B and the TS16415/B document, the static strength of the device is min. 14 kN for each anchor point.



1.5. GENERAL GUIDELINES



1.5.1. INSPECTION BEFORE FIRST USE

Before the first use of the ALUQUAD device, a competent person should carry out its visual inspection and functional check. The inspection is intended to check that all parts of the device are safe and have not been damaged as a result of incorrect assembly, transport or storage. The user is responsible for the inspections.

1.5.2. INSPECTION BEFORE USE

Before each use, always perform an initial check of the device in terms of correct operation in order to make sure that the condition of the device allows its safe use. During the initial inspection of the device, check all its elements in terms of damage, excessive wear, corrosion, abrasion, cuts or incorrect operation. The following aspects should be checked, in particular:

- visible faults of the units,
- whether the truck freely moves along the beam,
- whether the working load limit (WLL) of the device is adequate for the application and not exceeded. The user is responsible for the inspections.

1.5.3. MAXIMUM USEFUL LIFE / REGULAR INSPECTION

The maximum service life of the ALUQUAD device is unlimited, however, it depends on the degree of use and ambient conditions. Using the equipment in harsh conditions, marine environment, on sharp edges, when exposed to high temperatures or aggressive substances, etc., can mean that the equipment must be withdrawn from use even after one use. Following each 12-month period of use, the device must be taken out of service for a scheduled maintenance inspection. Only the following persons may perform the periodic inspections:

IN THE CASE OF PERSONAL PROTECTION EQUIPMENT (PPE): a competent person with knowledge and skills required to perform periodic inspections of personal protection equipment, the manufacturer or an entity designated by the manufacturer.

IN THE CASE OF HOISTING EQUIPMENT (equipment other than personal protective equipment): the person responsible for periodic inspections of hoisting equipment at the workplace. Depending on the type of work and working site environment, the equipment may need maintenance work more frequently than every 12 months. The maximum permitted service life of the device before the next inspection to be performed by the user shall be determined during the periodic inspection. The result of the periodic inspection should be included in the operating sheet. Regular scheduled maintenance significantly improves the equipment's life, as well as the safety of its users which depends on the performance and durability of the equipment. When carrying out a scheduled inspection, ensure that the markings on the equipment are checked for their legibility.

1.5.4. WARRANTY

The standard warranty period for the ALUQUAD device is 3 years, counting from the sale date. The warranty period can be extended for an extra fee.

1.5.5 MAINTENANCE / STORAGE / REPAIRS

If any faults are found during the inspection, the ALUQUAD device should be immediately decommissioned. The structure of the device may not be modified, repairs may not be performed and parts from the provided kit should not be replaced. During the use of the device, it should be protected against damage caused by mechanical, chemical and thermal factors. Do not use the device if it has any damaged or faulty elements. Dirty device should be cleaned with a wet cloth. Store the device indoors, away from moisture and heat sources.

**1.5.6. DECOMMISSIONING**

The device must be decommissioned immediately in the case of any doubts regarding its condition in which it can be safely used. Such device may not be reused until the manufacturer or its authorised entity has confirmed in writing that the equipment has been subjected to comprehensive testing.

1.5.7. TRANSPORT

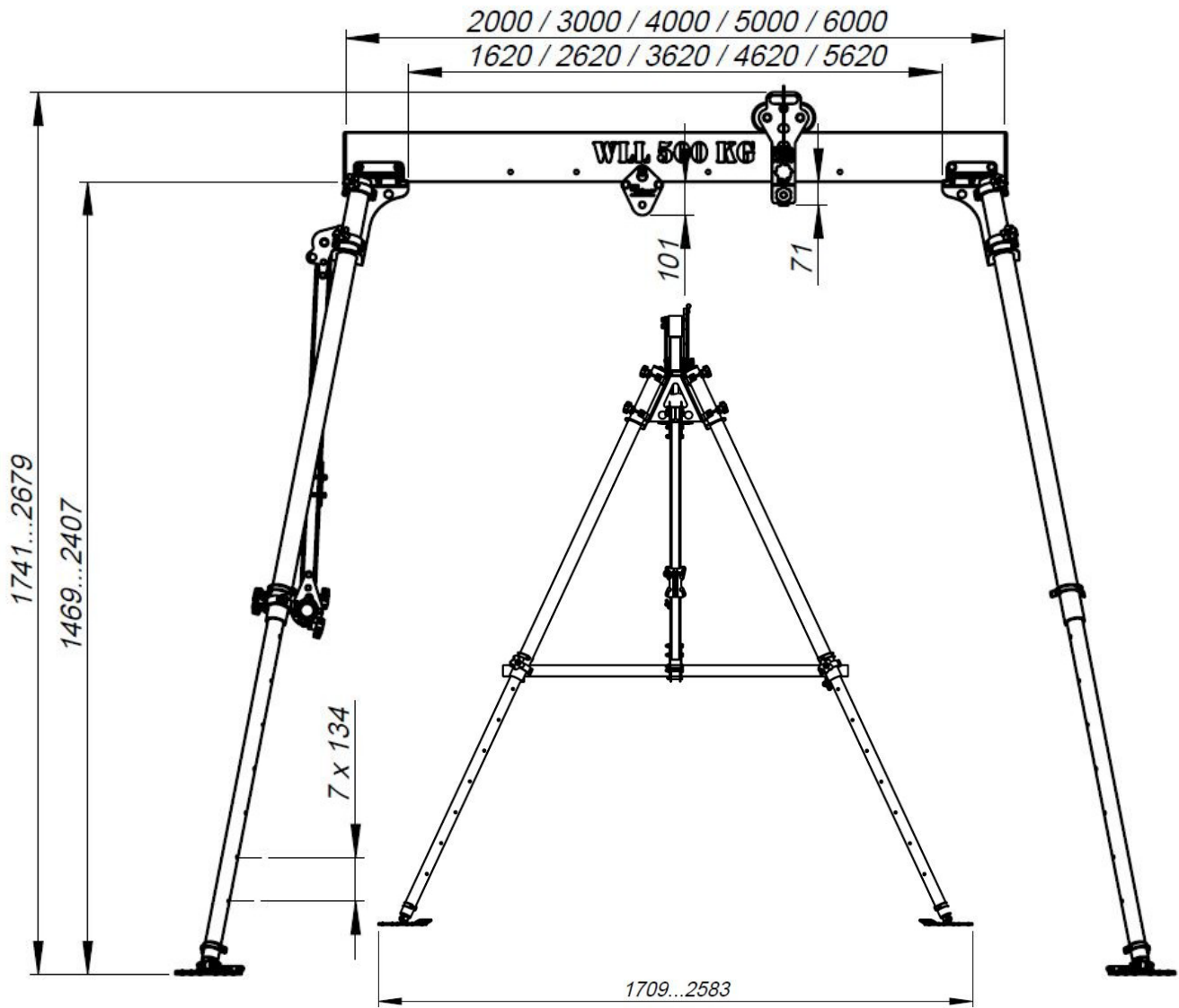
The device should be transported in a packaging protecting it against damage or wetting, e.g. in bags made of impregnated textile or in steel / plastic / water-tight wooden boxes.

1.6. GENERAL PRECAUTIONS

- The ALUQUAD device should be installed according to the recommendations included in this user manual.
- The ALUQUAD device can be used in the temperature range from -20°C to +50°C.
- The maximum working load limit (WLL), the value of which is specified on the beam, must not be exceeded.
- Loads may not be lifted/lowered during rescue operations – see Chapter 6.
- Each operation related to load handling should be planned thoroughly. The operator must also know the weight of the load to be lifted.
- Before starting any operations using the ALUQUAD device make sure that it is correctly assembled and secured according to this user manual.
- The load handling equipment (e.g. hoists, chains) may be connected only to the anchor point of the load truck moving along the beam.
- Loads must not be connected to anchor points present on the heads. These are intended for connection of personal protective equipment protecting against falls from heights (PPE).
- The operator must make sure that load handling accessories (e.g. winches, chains) are correctly attached and do not expose the operator or other people to danger.
- Never allow loads to swing.
- The beam must remain horizontal during all lifting operations.
- Avoid side loads. Loads should be lifted only if the carrier chain or working line are tensioned vertically between the load and the fixture point of the hoisting device.
- Do not lift or transport loads if anyone is present in the hazard area.
- Never stand or walk under suspended loads.
- Suspended loads should not be left unattended for longer periods of time.
- Before starting lowering the load, always make sure that no persons stand or walk under the load.



1.7. ALUQUAD - WORKING DIMENSIONS



CATALOGUE NO: RX225-xxx-000

where:

xxx - beam length [cm] [200 / 300 / 400 / 500 / 600]

EXAMPLE: RX225-200-000 – ALUQUAD device with a 2-metre beam.

1.8. ALUQUAD LABELLING

| | |
|-----------------------------|--|
| | |
| LOCATION – BEAM MARK | LOCATION – GENERAL MARK |
| | <p>LABEL INDICATING THE DATE OF THE NEXT INSPECTION Month and year of the next periodic manufacturer inspection. Do not use the device past this date. Note: Before the first use, note the date of the next inspection (date of first use + 12 months, e.g. if the device was first released on 01/2019 — mark the date as 01/2020). The label with the next inspection date should be placed next to the frame mark.</p> |

1.8.1. GENERAL MARK

| | |
|--|---|
| | <p>The mark is applied inside one of the heads.</p> <ol style="list-style-type: none"> Designation of the manufacturer or distributor Serial number Device type. Working load limit Catalogue number. CE mark Please note: Read the instruction manual Month and year of manufacture. |
|--|---|

1.8.2. BEAM MARK

| | |
|--|---|
| | <p>The mark is applied to the top surface of the beam, near the edge.</p> <p>Mark contents:</p> <ol style="list-style-type: none"> Designation of the manufacturer or distributor Serial number Device type. Working load limit Catalogue number. CE mark Please note: Read the instruction manual Month and year of manufacture. |
|--|---|



2. CHAPTER 2 – DEVICE INSTALLATION

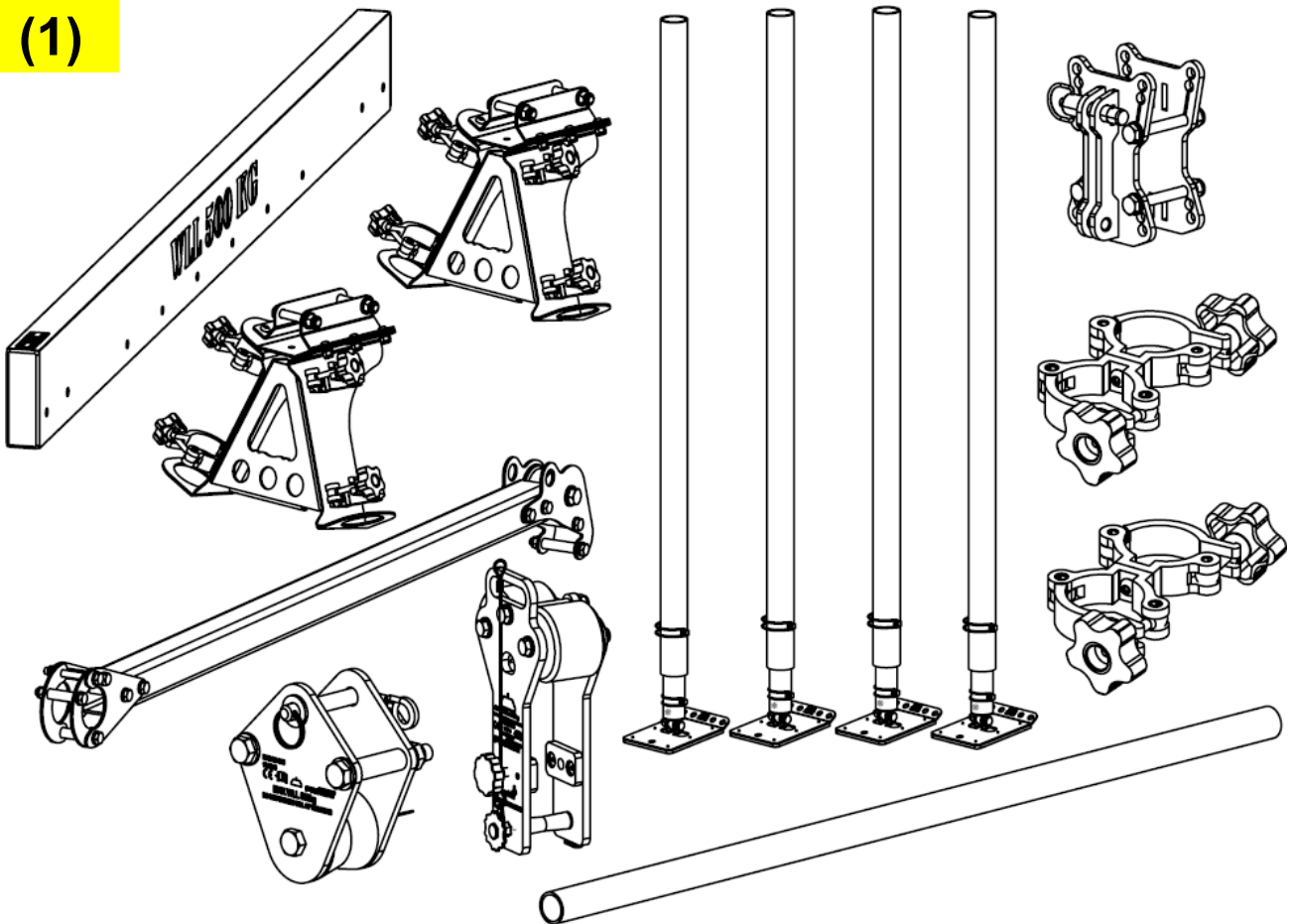
The ALUQUAD device may be installed by at least one person wearing a protective helmet, shoes and working gloves.

2.1. ALUQAD INSTALLATION - BASIC VERSION

The basic elements of ALUQUAD include:

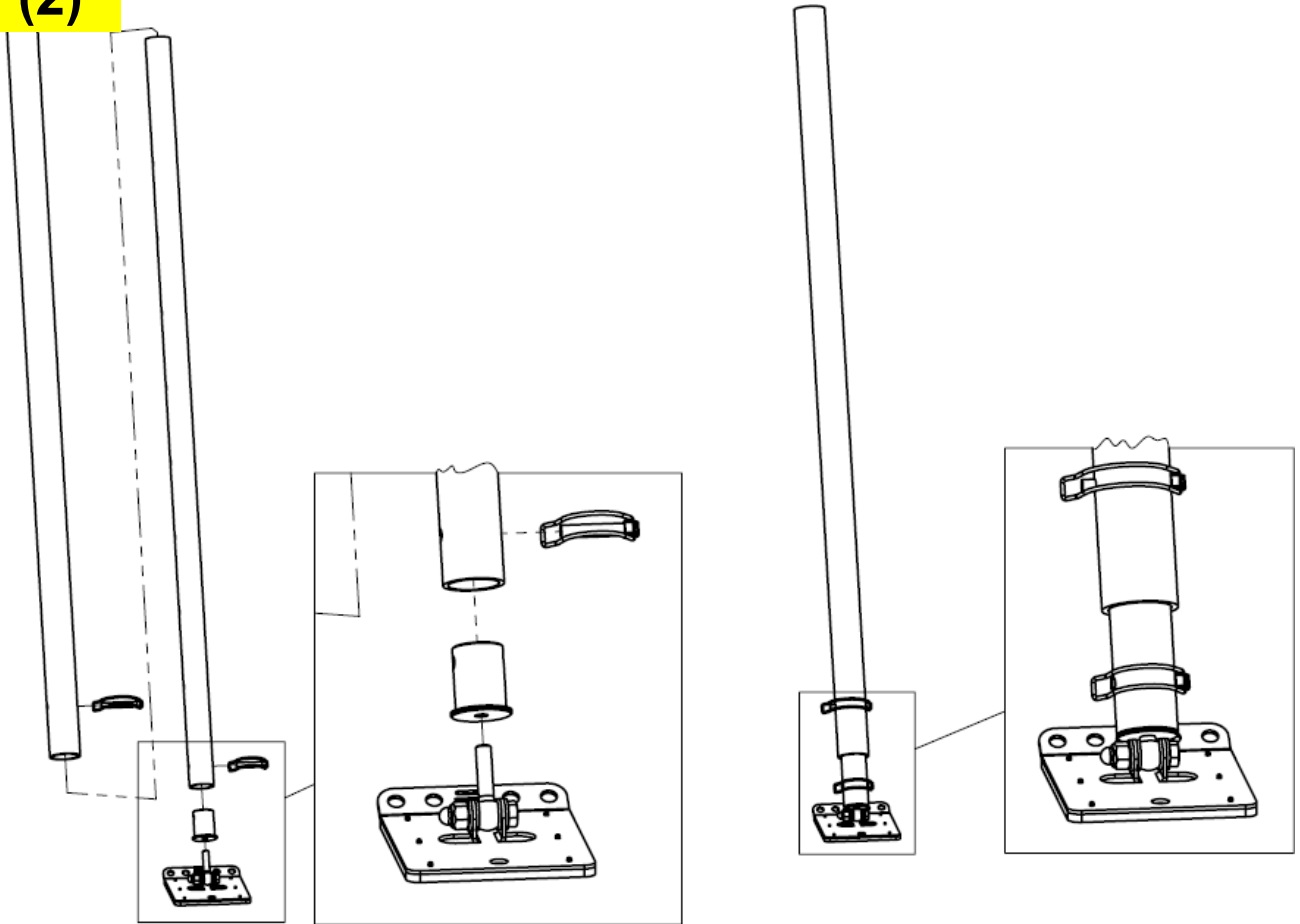
1 x BEAM, 2 x STEEL HEAD, 4 x TELESCOPIC LEG WITH STEEL FOOT, 1 x MULTI-PURPOSE WINCH FIXTURE, 2 x ROTARY PIPE CONNECTOR, 1 x WINCH BASE, 1 x WORKING LINE REEL INSTALLED ON THE BEAM, 1 x WORKING CARRIAGE, 1 x HORIZONTAL BEAM FOR WINCH BASE

(1)

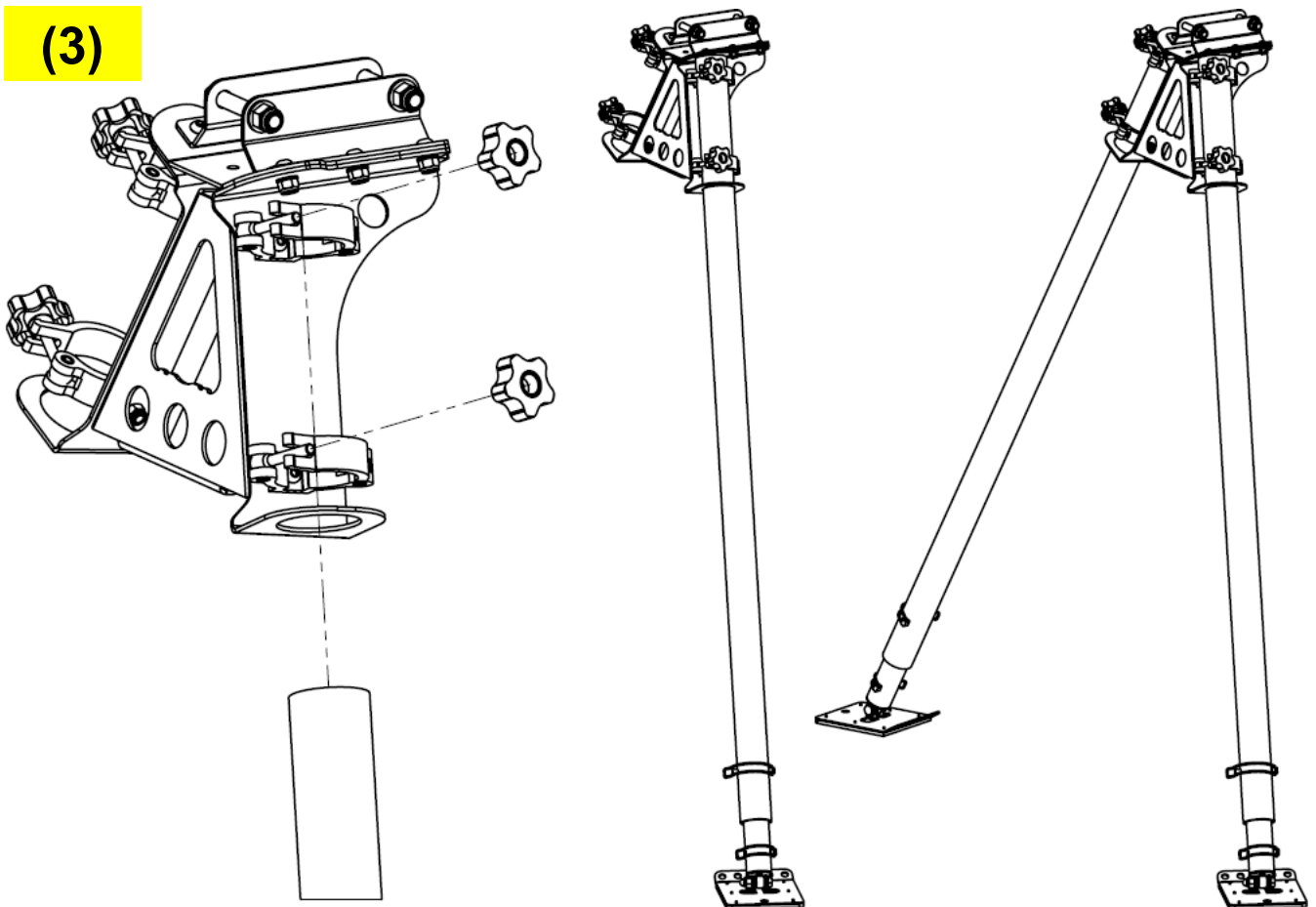




(2)

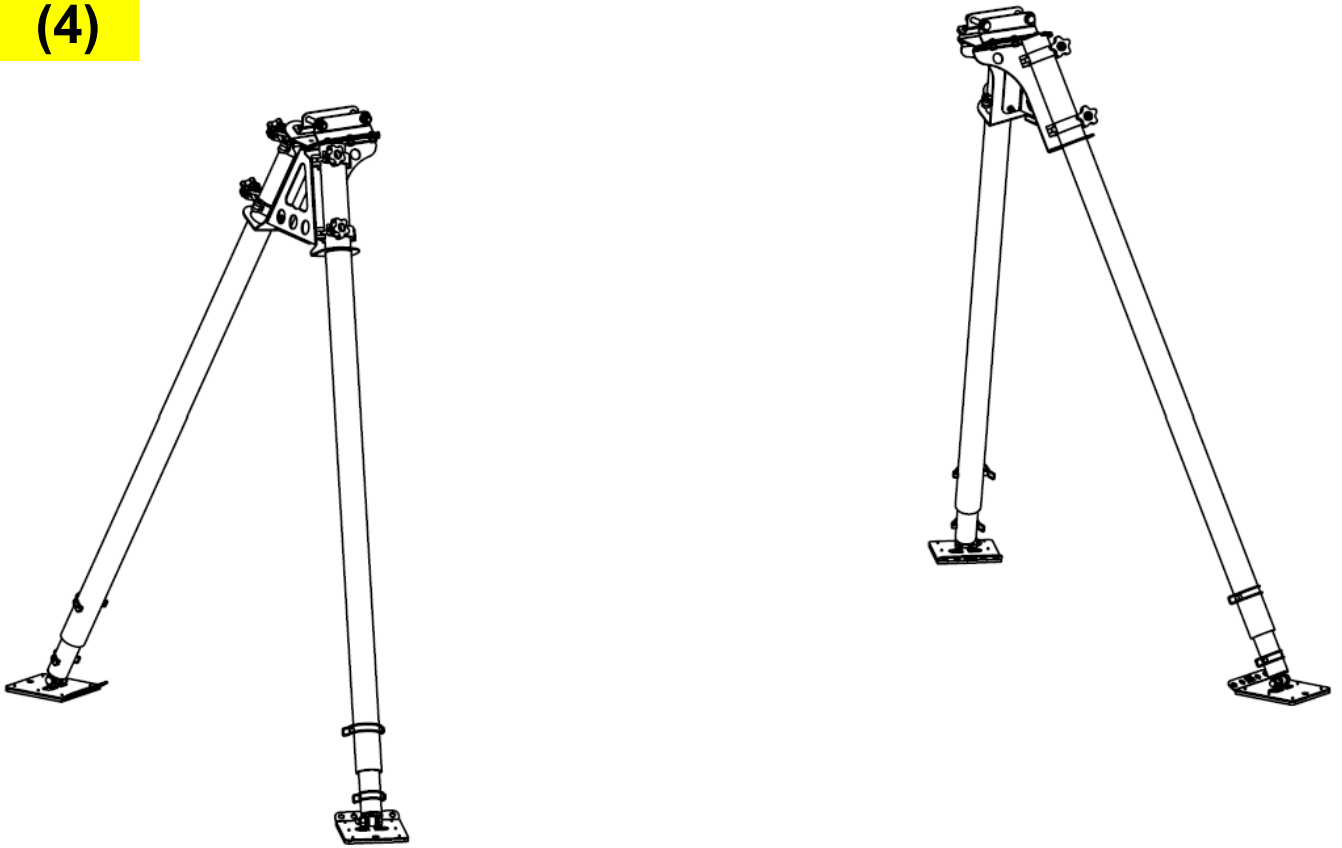


(3)

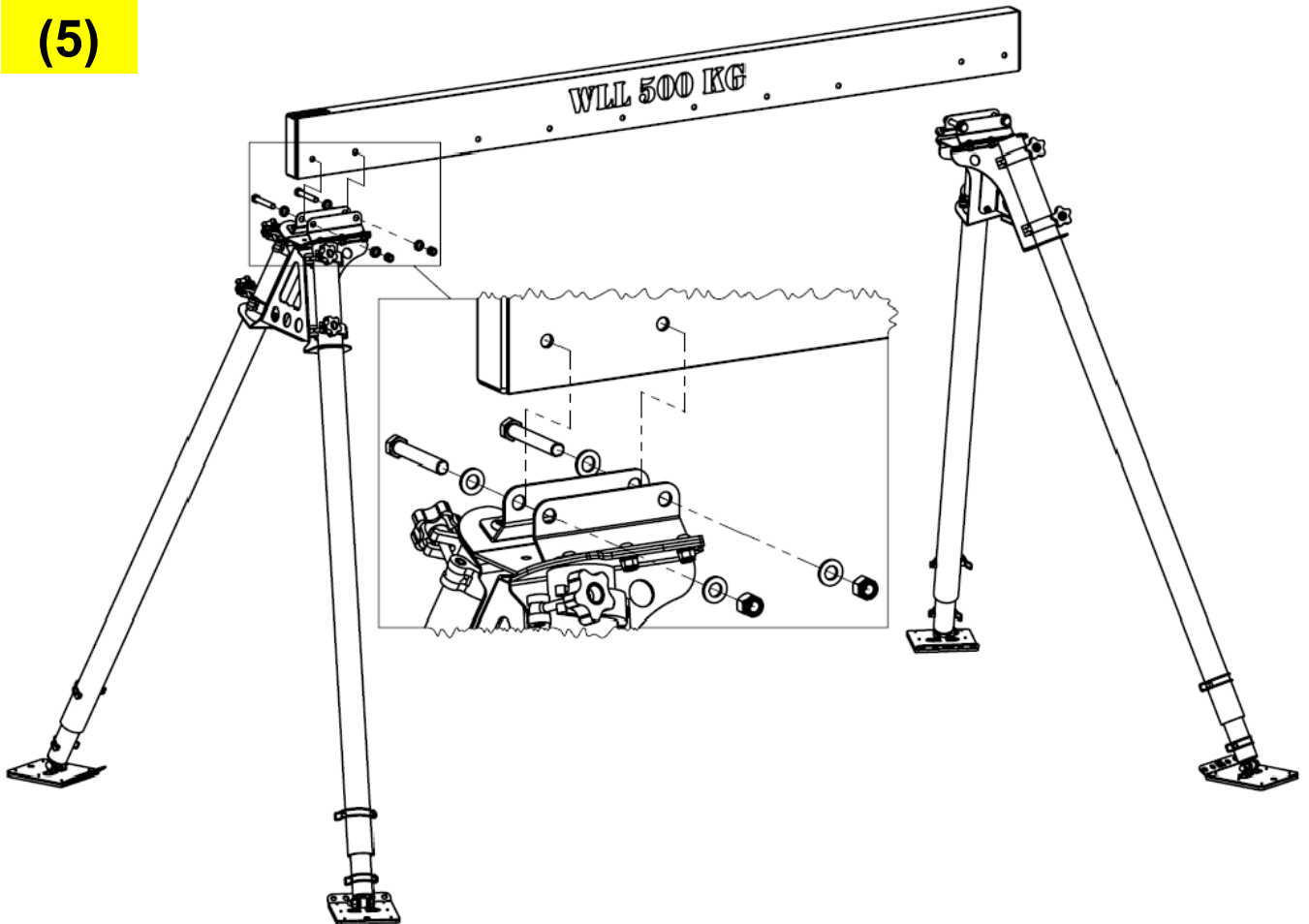




(4)

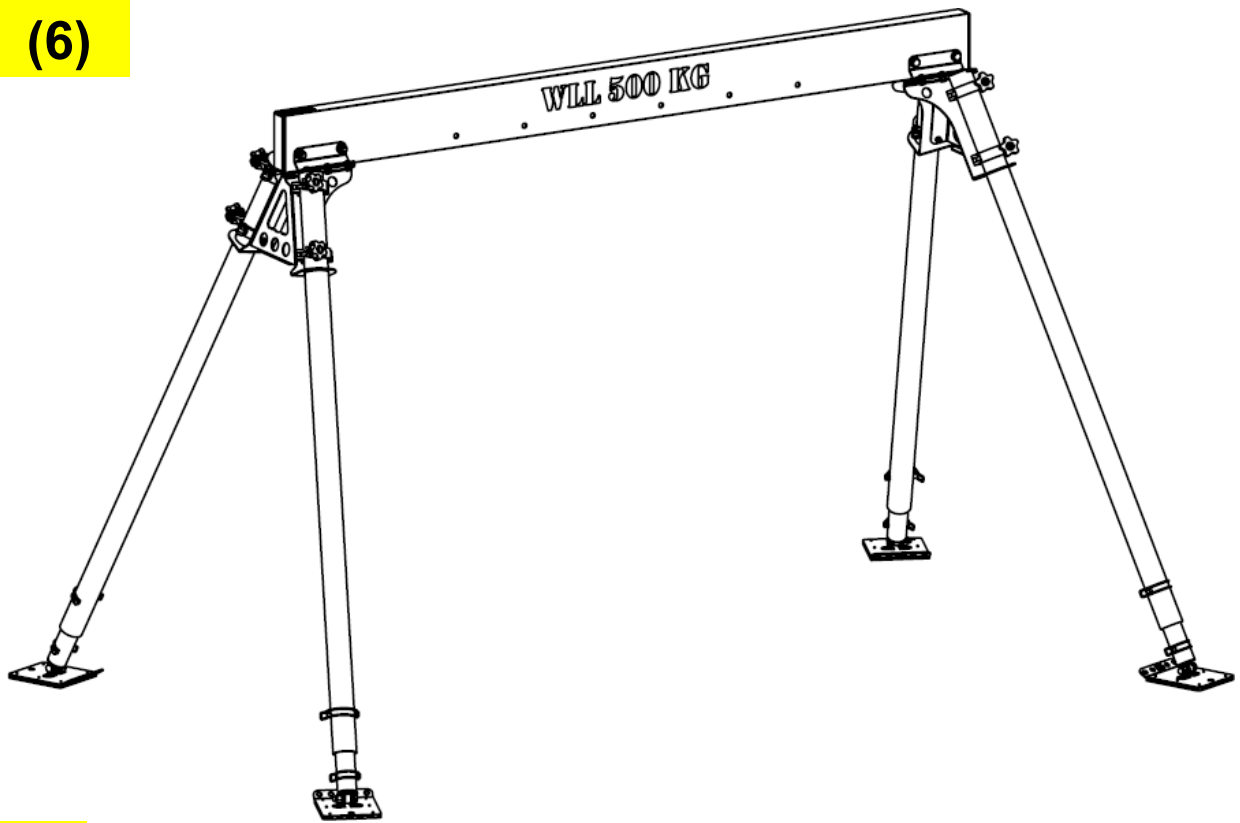


(5)

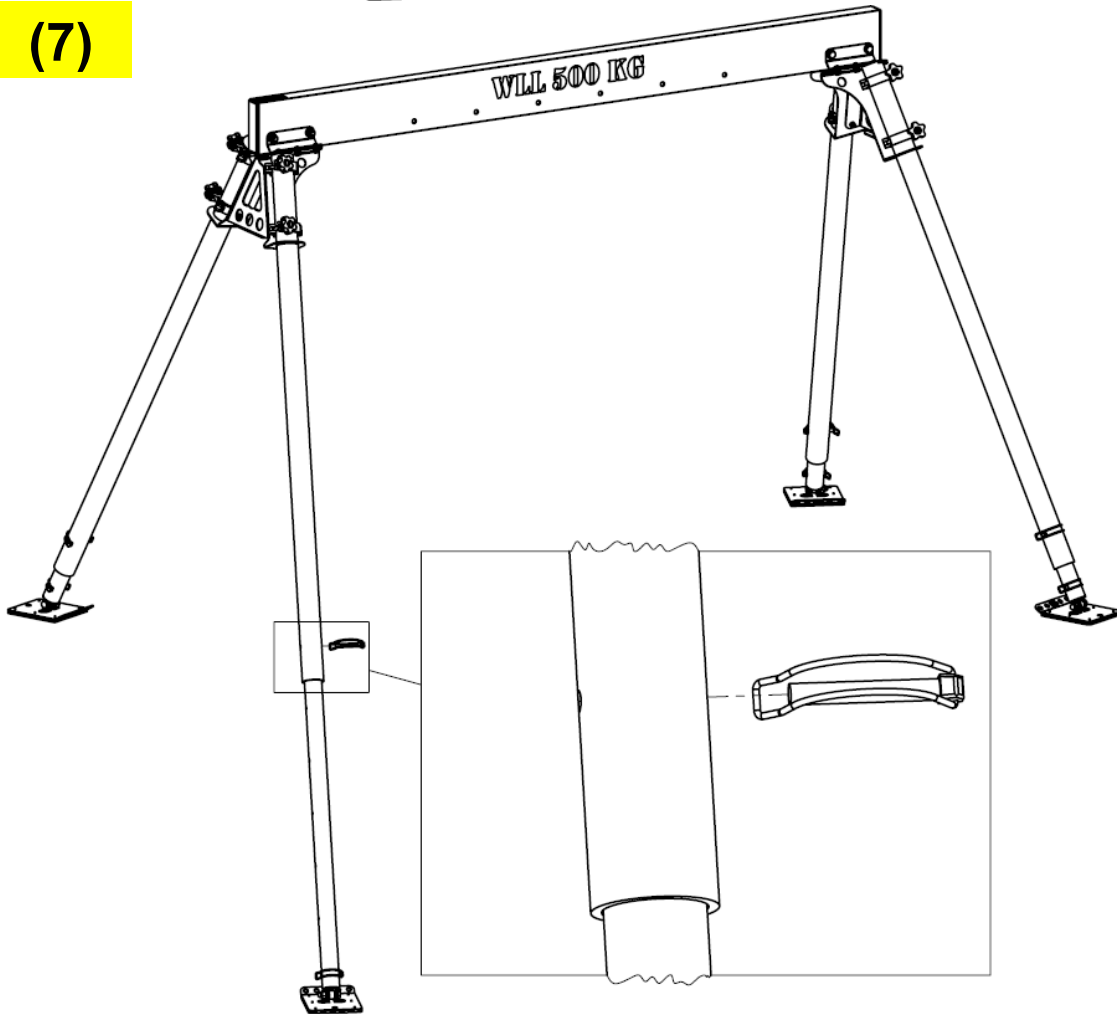




(6)

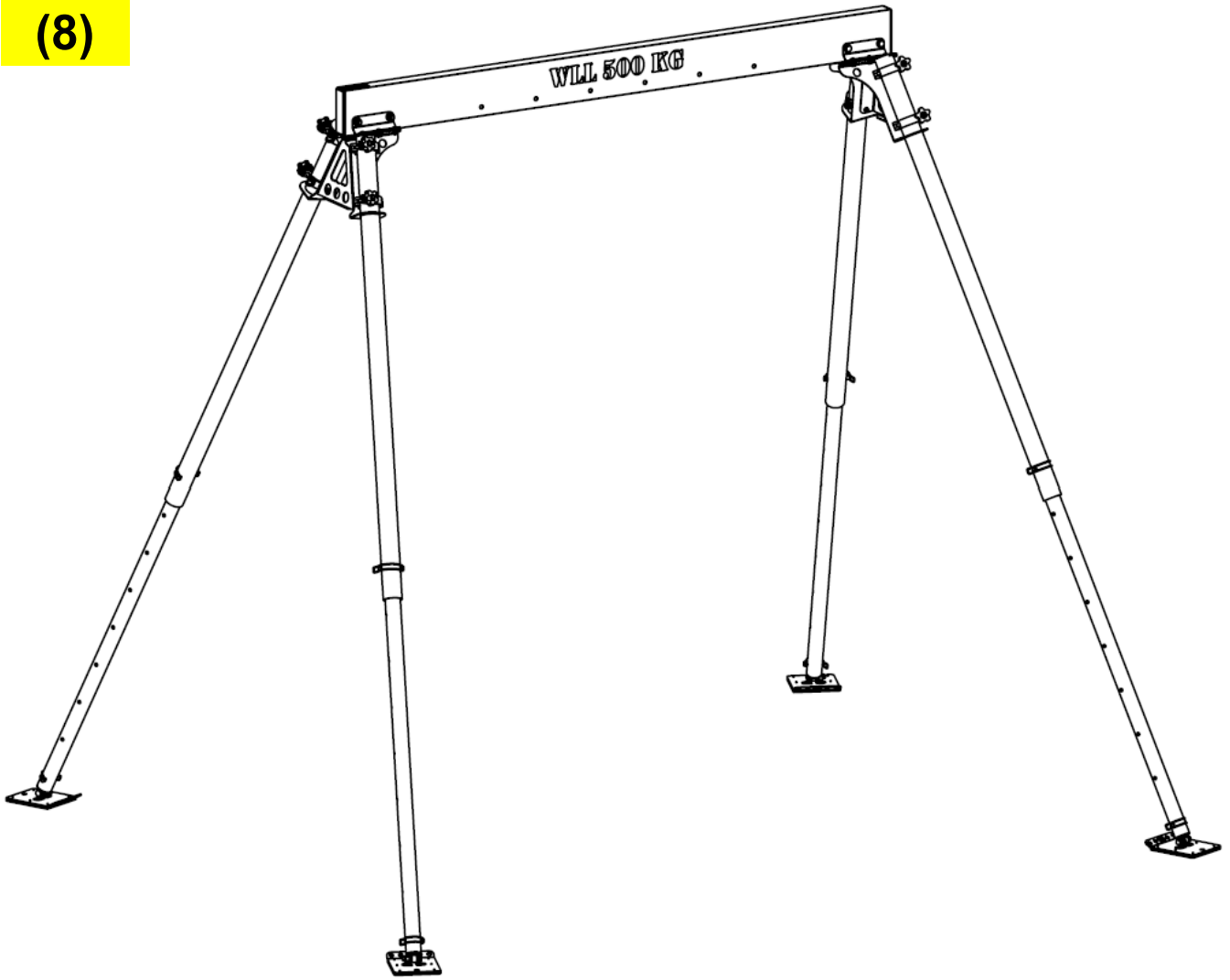


(7)

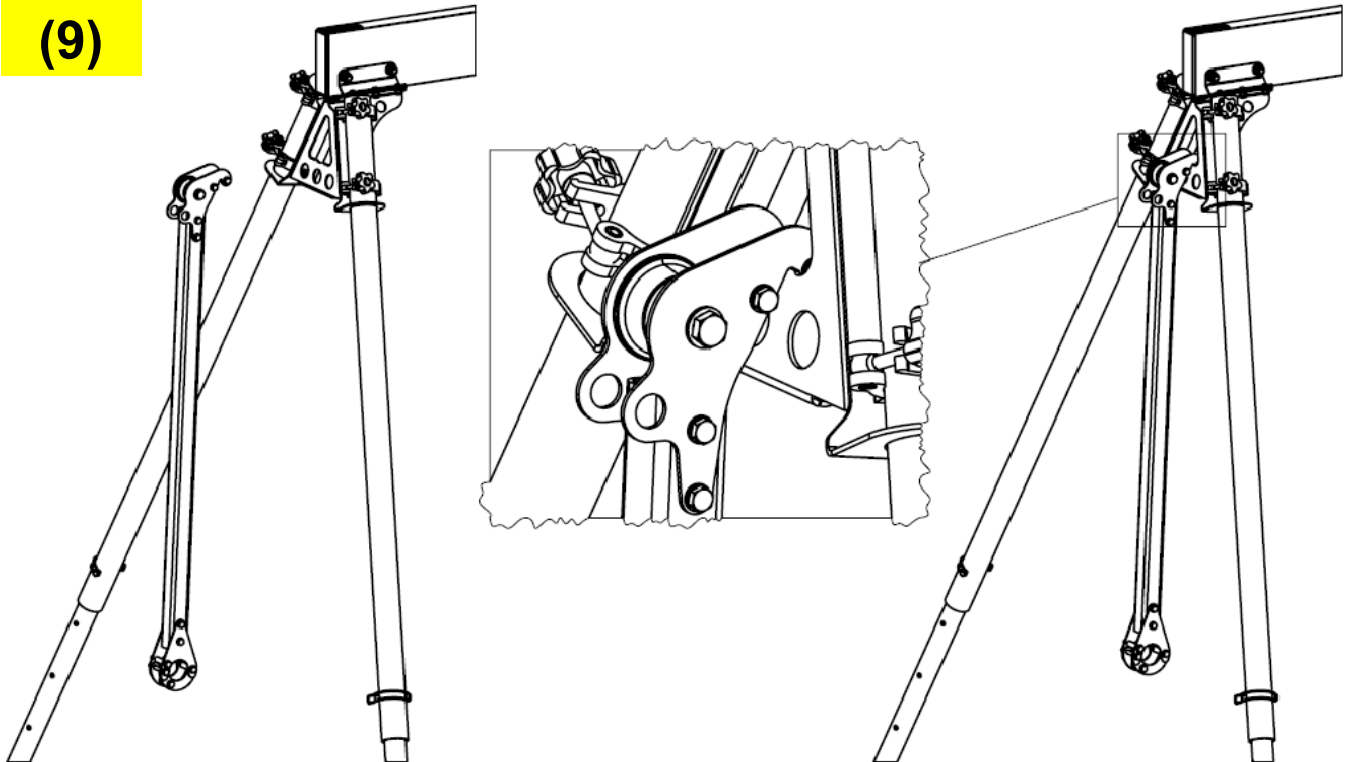




(8)

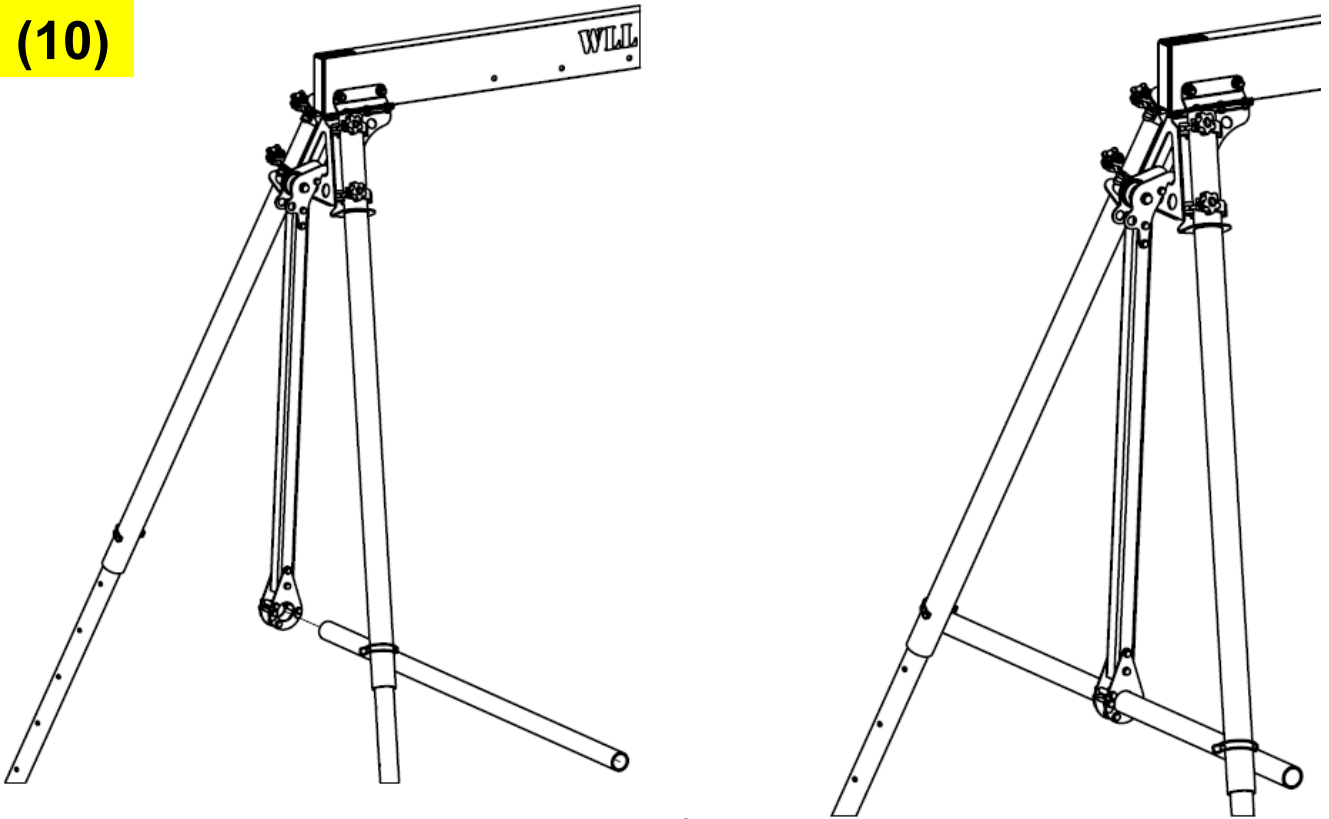


(9)

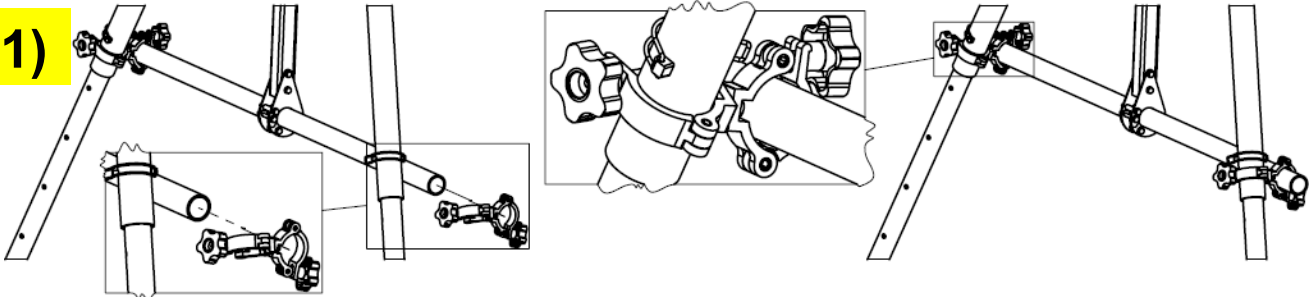




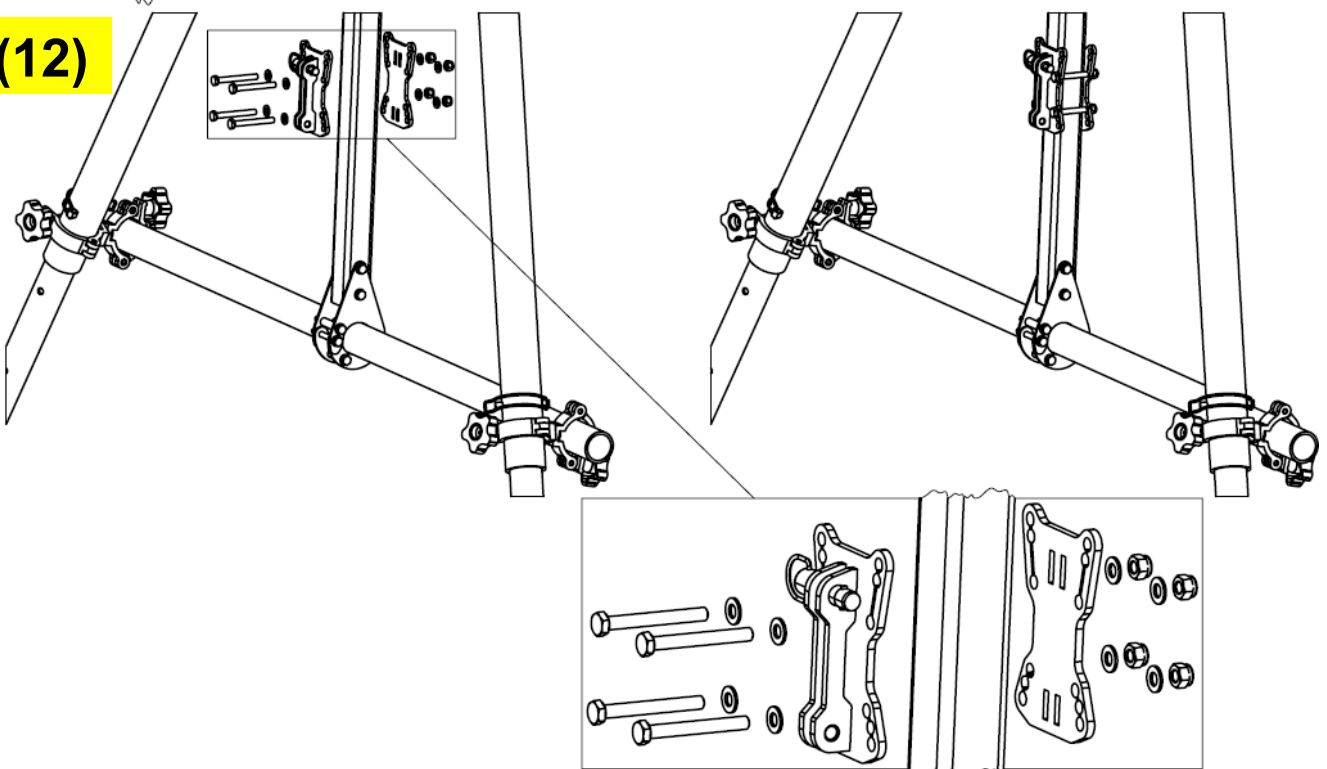
(10)



(11)

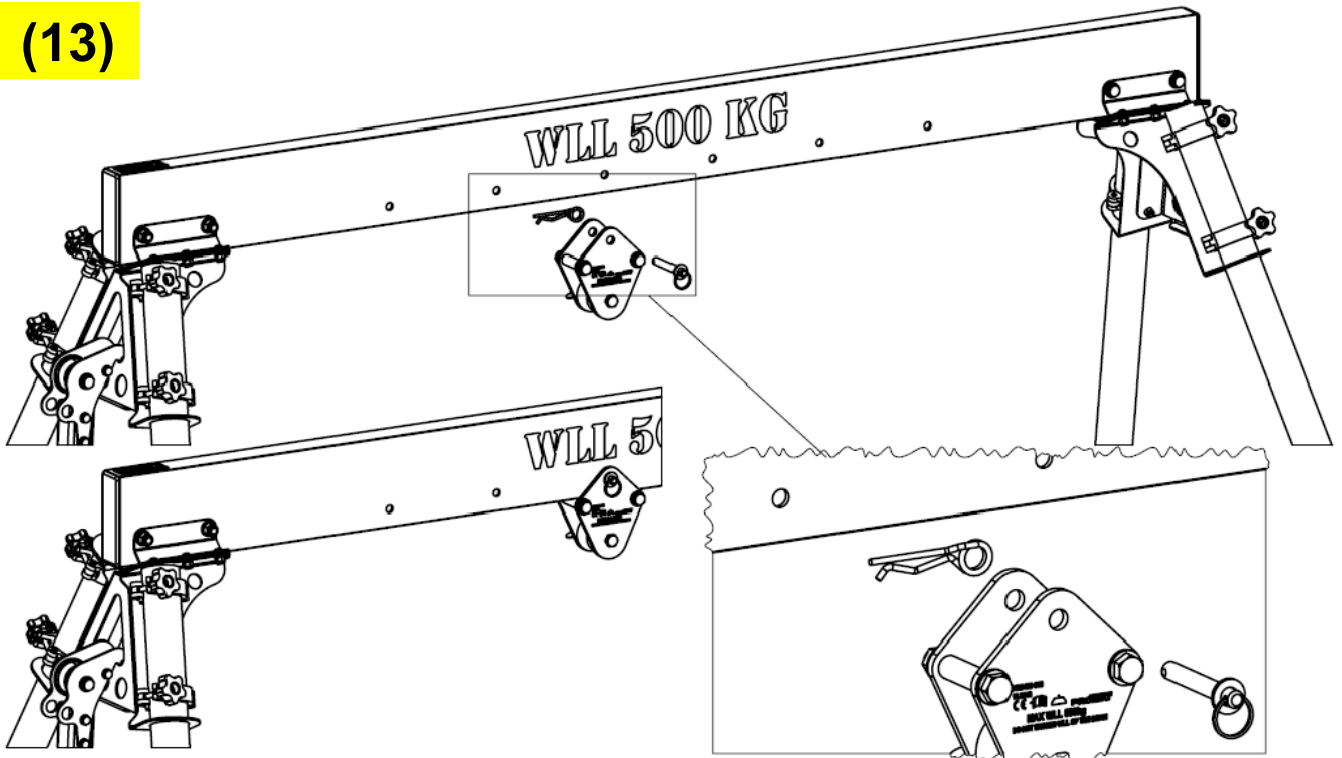


(12)

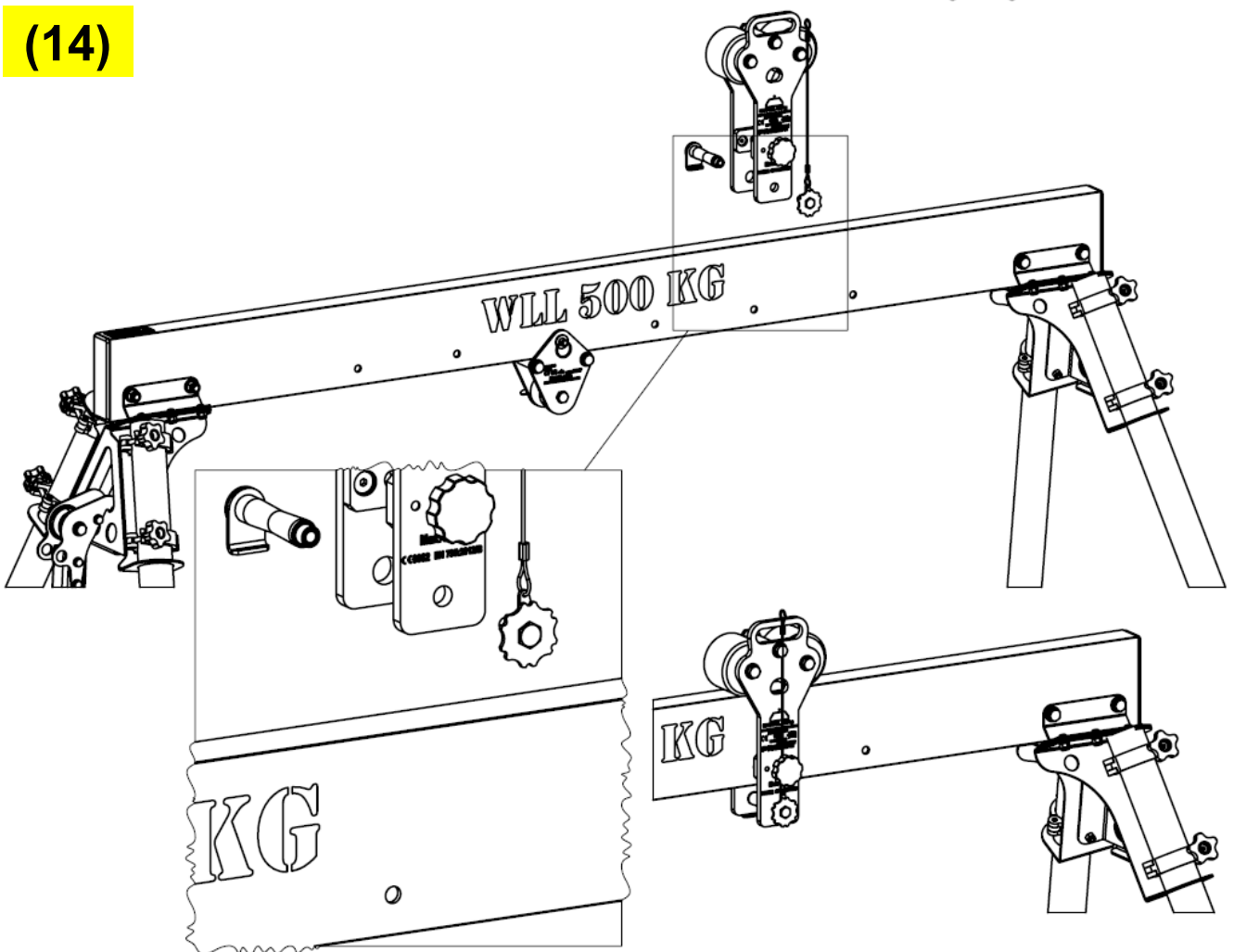




(13)

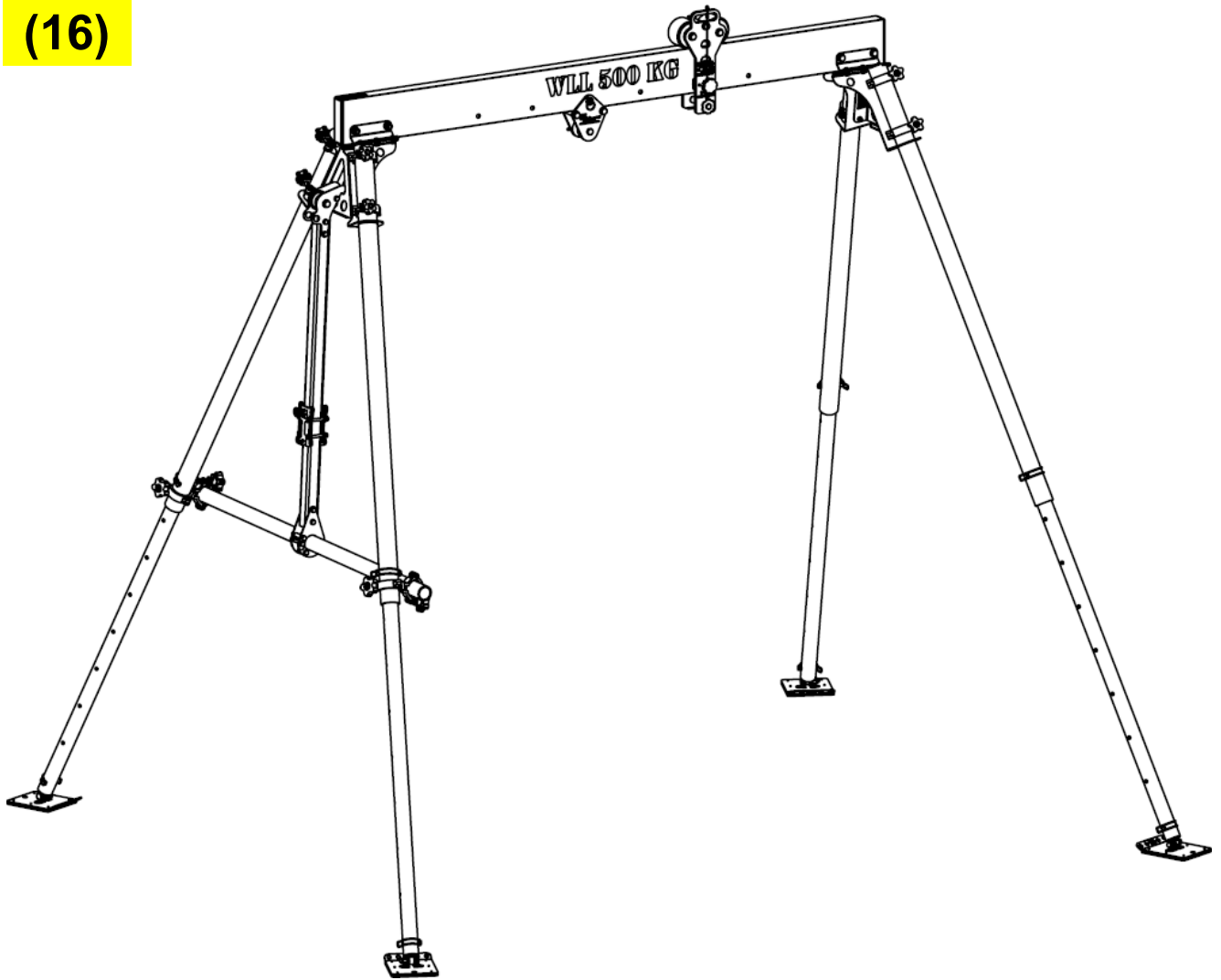


(14)





(16)





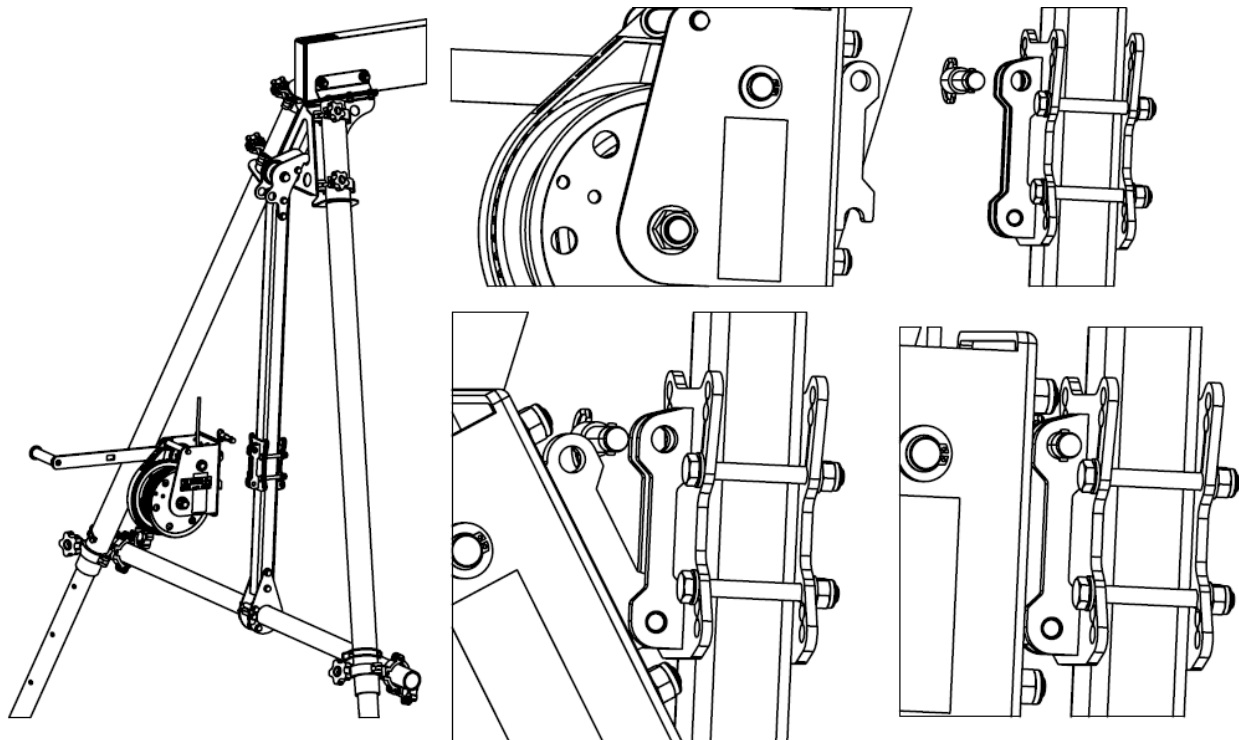
2.2. LIFTING EQUIPMENT INSTALLATION

2.2.1. RUP 502-U HOIST INSTALLATION

The ALUQUAD device may be used together with a hoisting device with a brake, RUP502-U series.
The RUP502-U hoist may be installed at the winch base mounted between the legs.

The device should be secured using an automatic pin.

MAX WLL: 500 kg MAX / LINE LENGTH: 25 m

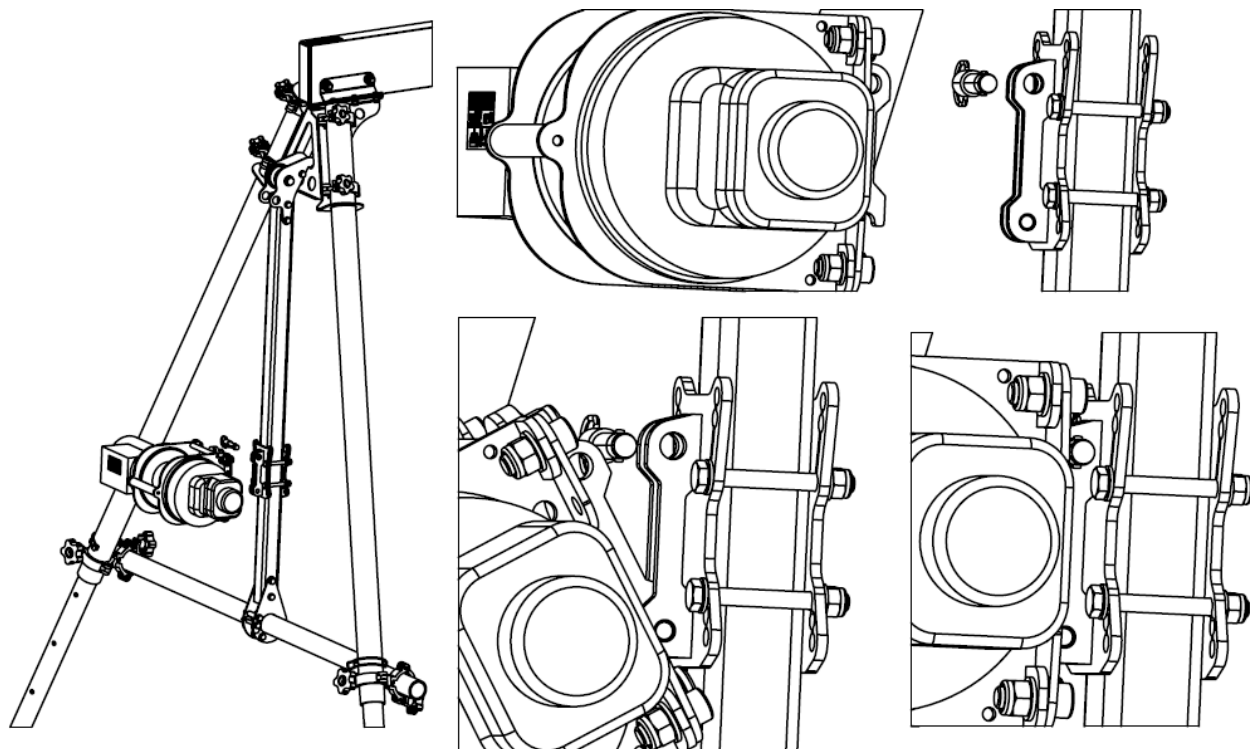


2.2.2. RUP504 ELECTRIC HOIST INSTALLATION – VARIANT “A”

The ALUQUAD device may be used together with an electric hoist RUP504.
The RUP504 hoist may be installed at the winch base mounted between the legs.

The device should be secured using an automatic pin.

MAX WLL: 500 kg MAX / LINE LENGTH: 30 m



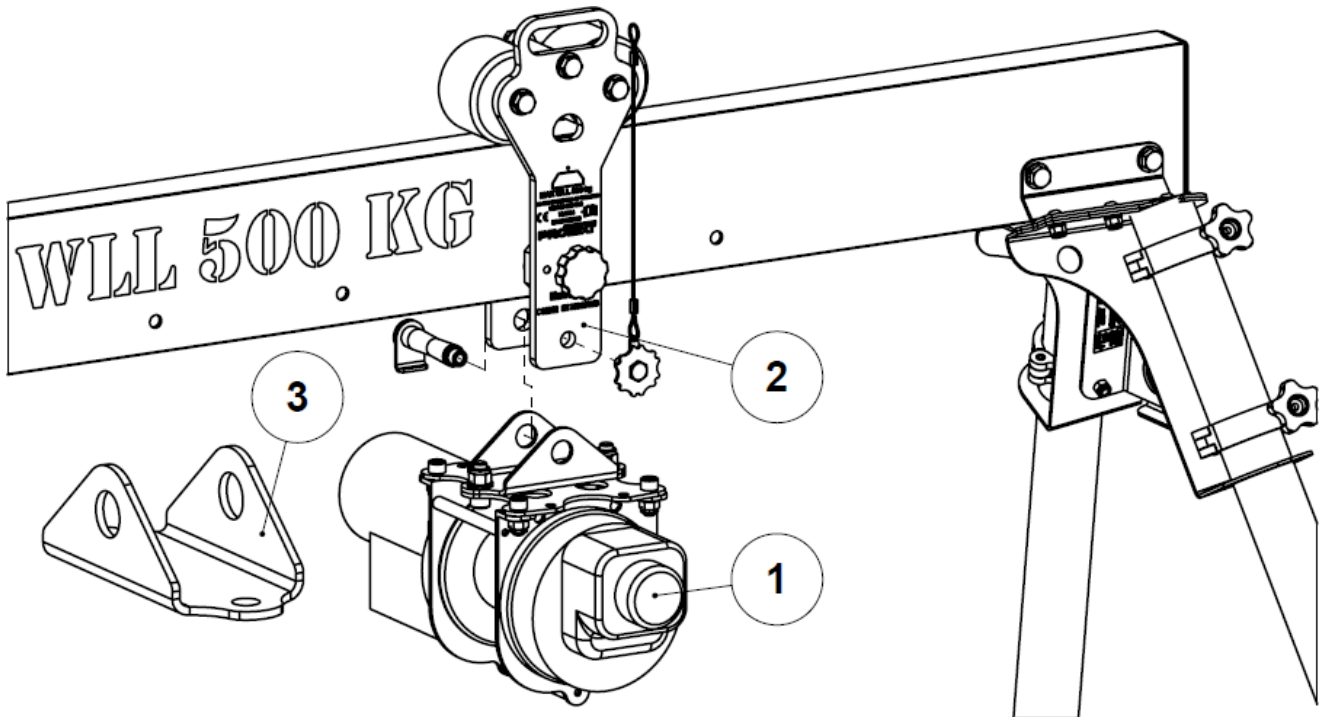


2.2.3. RUP504 ELECTRIC HOIST INSTALLATION – VARIANT “B”

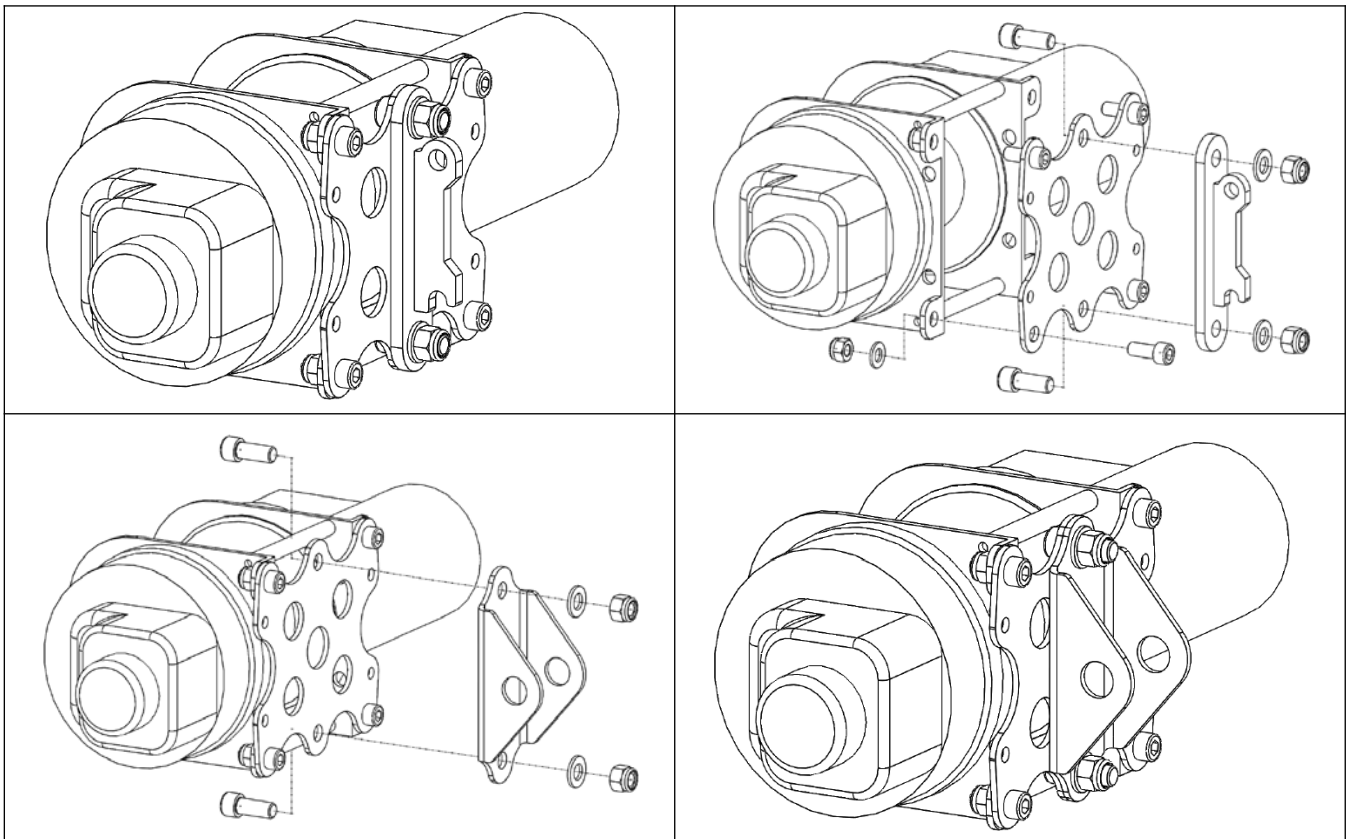
The ALUQUAD device may be used together with an electric hoist RUP504.

The RUP504 hoist (1) may be installed on the load truck (2) using an KSB100- 353-005 (3) adapter.

MAX WLL: 500 kg MAX / LINE LENGTH: 30 m



Exchange of the standard fixture (AT017-330) of the RUP504 device with a KSB100-353-005 adapter (sold separately).





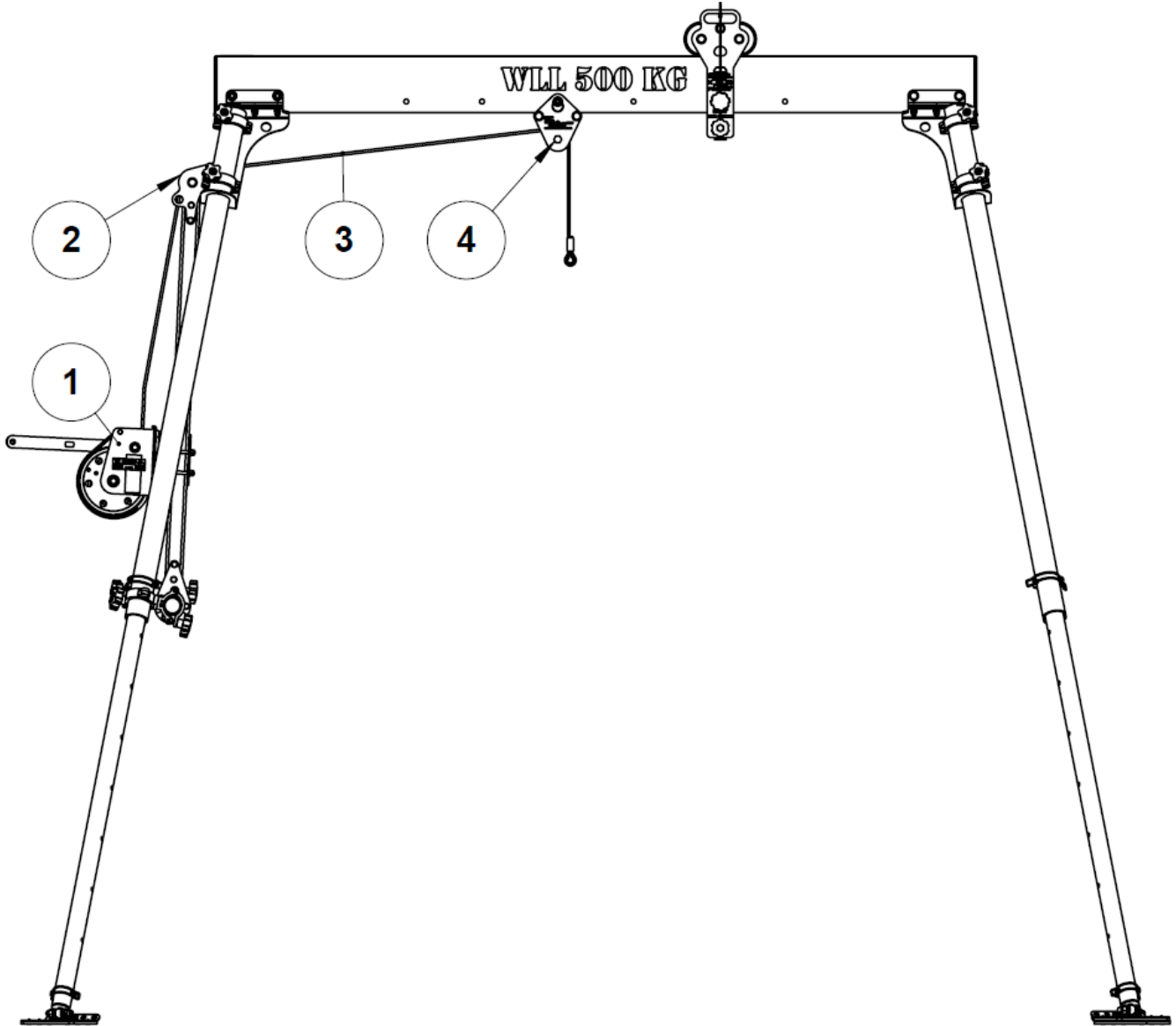
2.3. HOIST WORKING LINE INSTALLATION

The working line of the RUP series hoists should be guided through two line reels.

The first reel is located at the top end of the winch base.

The second reel is installed on the beam (detailed installation information - see p. 2.1 – Fig. (13)).

1. hoist
2. winch base reel
3. working line of the hoist
4. reel installed on the beam





3. CHAPTER 3 – LOAD HANDLING

The ALUQUAD device may be used together with a load truck KSB100-350-000 to handle loads with the maximum weight (WLL) specified on the beam. Several load trucks can be used on a single beam. Loads suspended on several external trucks may not exceed the WLL value specified on the beam.

Information related to the use of the device for personal protection purposes is provided in Chapter 4.

Information related to the use of the device for rescue purposes is provided in Chapter 5.

3.1. LOAD CAPACITY

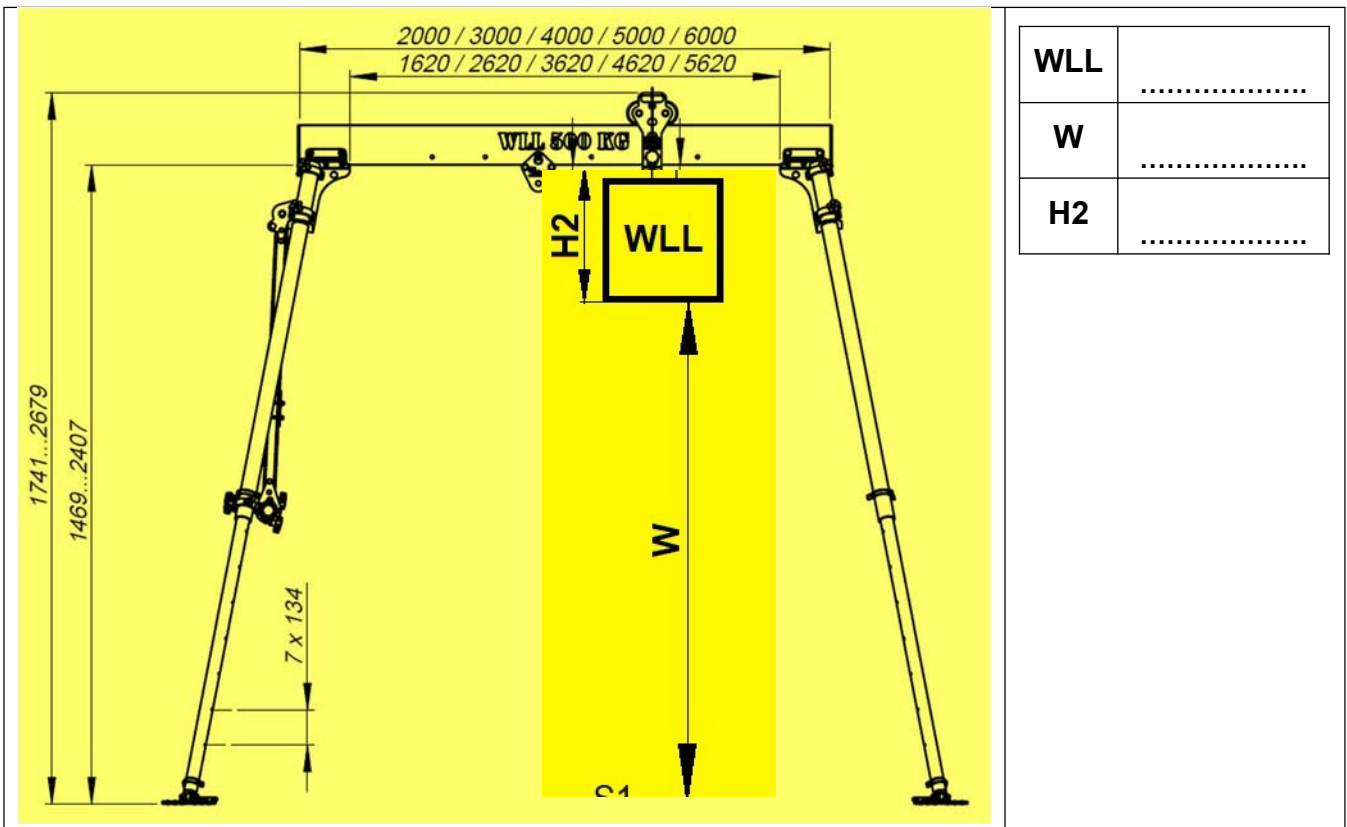
The load lifted using the ALUQUAD device may be connected to the anchor point of the load truck using chain hoists or other lifting equipment with an adequate load capacity. The load truck should be installed on the beam. The maximum load capacity of the device is marked on the beam.

Do not exceed the working load limit value (WLL) specified on the beam. The working load limit value (WLL) of the used hoisting device may not exceed the WLL of the beam.

3.2. LAYOUT DRAWING INCLUDING THE ATTACHED HOIST

Dimensions are filled in the following drawing, on the basis of the data provided in the technical tables for ASB devices (see paragraph 1.7) /LSB (see paragraph Error! The reference source cannot be found.). Dimension L / S / S1 / H / H1 / E / D are available in technical tables.

The H2 / W dimensions and the new value for WLL should be filled according to the installed winch.



| | |
|---|-------|
| MODEL / TYPE / WLL OF THE USED HOISTING DEVICE | |
|---|-------|

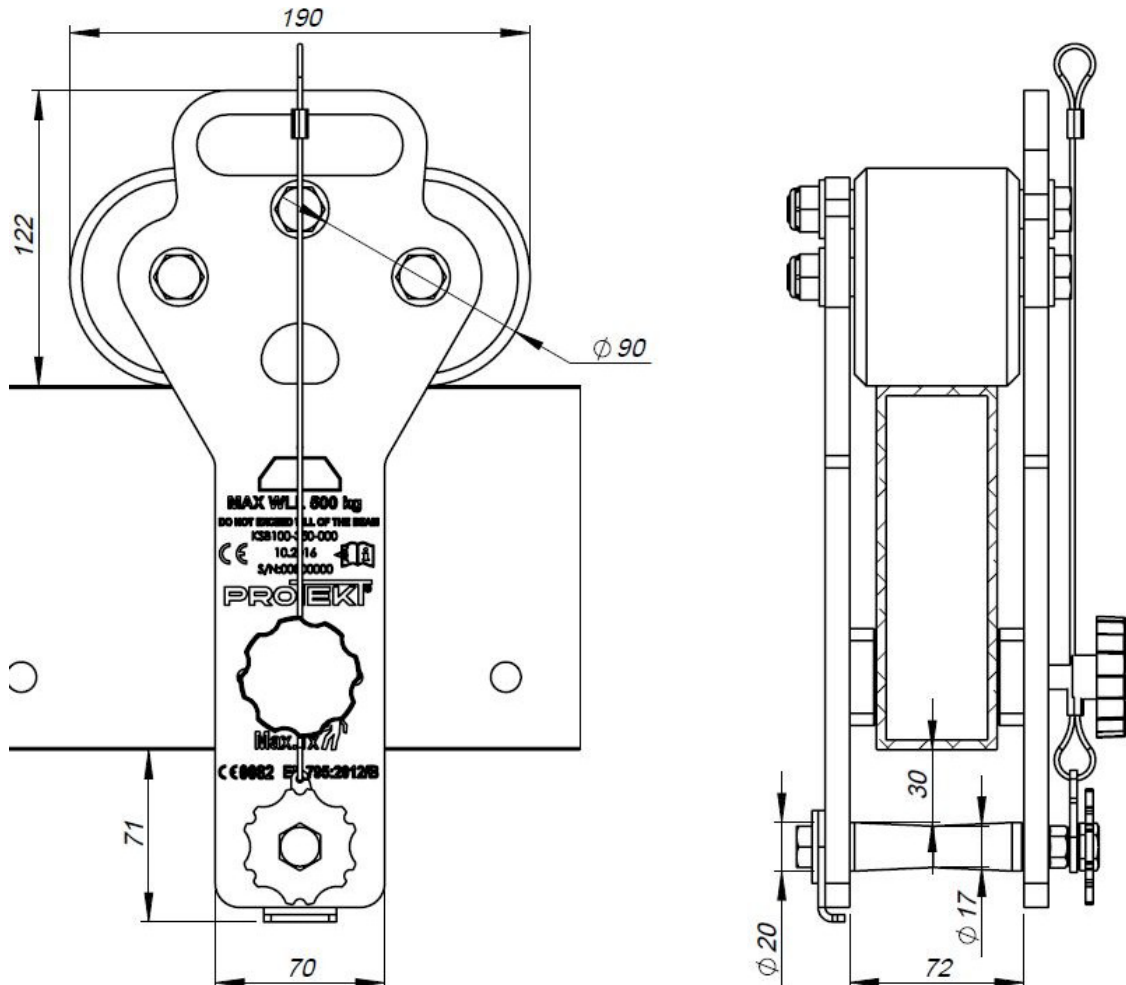
CAUTION! THE WORKING LOAD (WLL) OF THE HOIST MUST BE LOWER THAN OR EQUAL TO THE WORKING LOAD (WLL) DESIGNATED ON THE BEAM OF THE ALUQUAD DEVICE.

3.3. GENERAL PRECAUTIONS FOR LOAD HANDLING

- The ALUQUAD is used to lift and lower loads with weight not exceeding the WLL value specified for it.
- The load truck is not intended for rescue and evacuation purposes while lifting loads.
- The ALUQUAD device should be used only according to its intended use.
- Do not lift loads over locations where people are present while using the device.
- The structure of the device may not be modified, repairs may not be performed and parts from the provided kit should not be replaced.
- Before each use of the device, its technical condition and operation should be checked thoroughly. Thoroughly check all the parts, paying particular attention to all signs of damage, excessive wear, corrosion, abrasion, cuts and faulty operation.
- The device should be immediately decommissioned in the case of any doubts regarding its technical condition or operation. The device may be used again only if a thorough factory inspection is carried out and a written approval of the manufacturer for use is obtained.
- ALUQUAD should be placed on a flat, paved and stable surface, free of stones, gravel, etc.
- Check the stability of the load attached to the anchor point of the load truck or the line in order to prevent accidental detachment of any element.
- The use of the device together with other equipment (e.g. equipment used to lift and lower loads) should take place according to the user manuals for such equipment.
- Use of kits involving the ALUQUAD device, in which the operation of any element disrupts the operation of other elements, is prohibited.
- Contract the manufacturer in the case of doubts regarding the technical condition and the operating conditions of this device.
- Avoid working in situations, in which the user may swing, resulting in an impact with an object or if the lines may cross each other or become entangled in other lines or ropes used by a different user present nearby.

3.4. KSB100-350-000 LOAD TRUCK – DIMENSIONS

The KSB100-350-000 truck is mounted on the ALUQUAD beam as shown in Fig. 2.1 – Fig. (14).





3.5. LOAD TRUCK LABELLING

| | |
|---|--|
| <p>a) Designation of the manufacturer or distributor. b) Model symbol / Part no. c) Month and year of manufacture / Serial number d) Note: read the instruction manual e) Load hoisting device. f) CE mark g) Working load limit (WLL).</p> | |
|---|--|

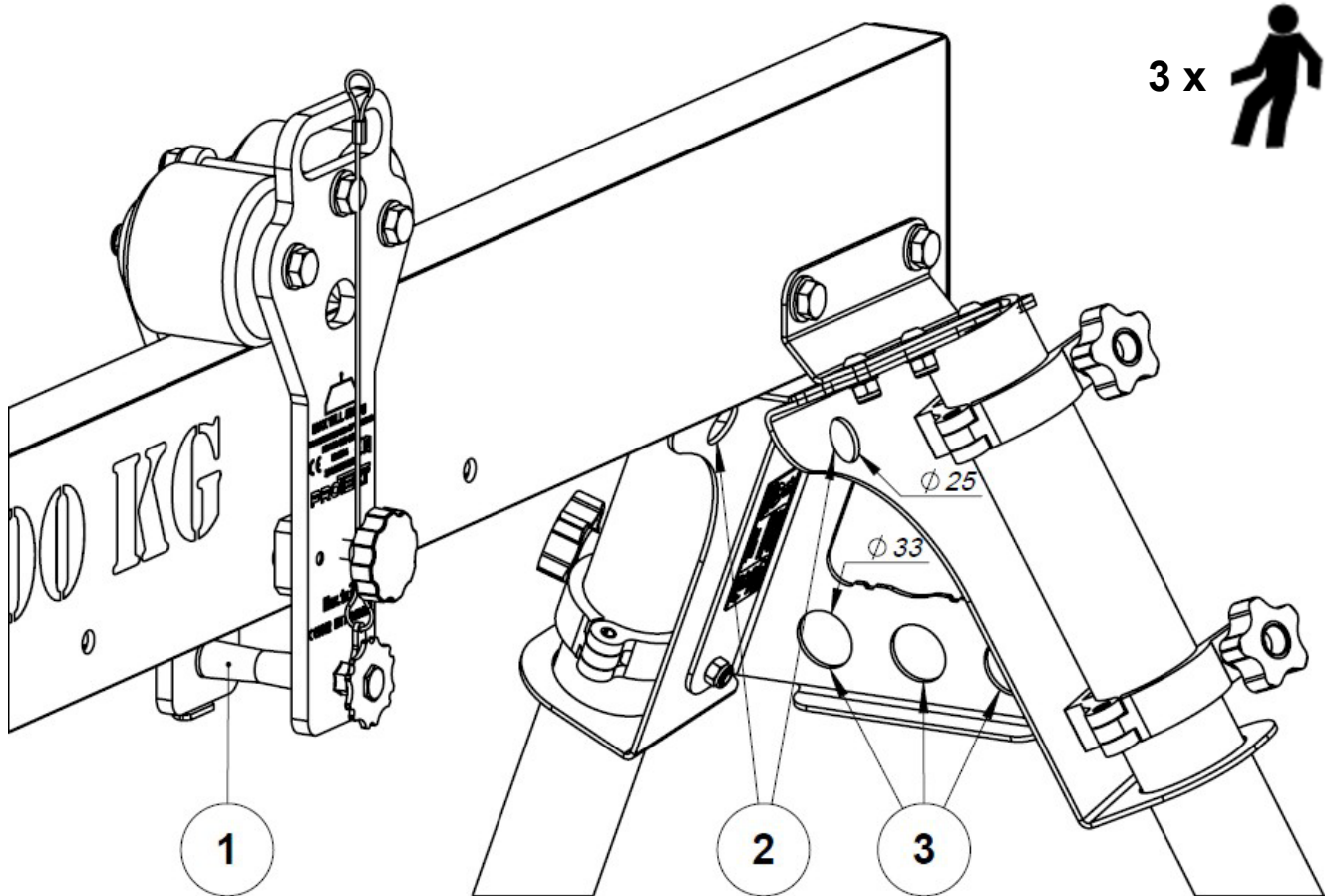
3.6. ALUQUAD BEAM SAG AT THE WORKING LOAD LIMIT (WLL)

| | | | | | |
|------------------------|----------|----------|----------|----------|----------|
| Length [m] | 2 | 3 | 4 | 5 | 6 |
| WLL [kg] | 500 | 500 | 500 | 300 | 300 |
| Deflection [mm] | to ...mm | to ...mm | to ...mm | to ...mm | to ...mm |



4. CHAPTER 4 – INDIVIDUAL PROTECTION ACCORDING TO THE EN795 STANDARD AND THE TS16415 DOCUMENT (PPE)

According to the EN 795 standard and the TS 16415 document, the ALUQUAD device may be used as a temporary anchor for attaching equipment protecting against falls from heights (PPE) using the security truck KSB100-350-000 (1) and/or anchor points available at both heads (2) / (3).



The ALUQUAD device ensures protection of up to 3 person simultaneously. A maximum of 3 persons can be connected to each point.

The dimensions of the load truck are provided in p. 3.4.

Information related to the use of the device for rescue purposes is provided in Chapter 5.

4.1. SECURITY TRUCK LABELLING (PPE)

| | |
|--|--|
| <ul style="list-style-type: none"> a) Designation of the manufacturer or distributor. b) Model symbol / Part no. c) Month and year of manufacture / Serial number d) Note: read the instruction manual e) The maximum number of users permitted to use the device simultaneously f) European standard number/year/class. g) CE mark and the ref. no. of the notified body supervising the production process. | |
|--|--|



4.2. PERSONAL PROTECTION RULES:

- One truck can be used by three persons simultaneously.
- A maximum of three persons can be attached to the available anchoring points simultaneously.
- The anchoring points intended for personal protection are used only to attach fall arrest systems, and not hoisting devices.

4.3. GENERAL PRECAUTIONS

- Avoid working in situations, in which the user may swing, resulting in an impact with an object or if the lines may cross each other or become entangled in other lines or ropes used by a different user present nearby.
- Fall arrest systems and evacuation systems used together with this device must meet the effective European standards (EN 795 — Anchor devices; EN 362 — Connectors; EN 361 — Full body harnesses; EN 360; EN 1496 for rescue hoists; EN 1497 — Rescue and evacuation harnesses; EN 341 — Descender devices).
- The maximum fall arresting force (MAF) to which the user of the fall arrest system (FAS) is exposed during fall arrest is limited to 6 kN by EU legislation. The system used to ensure protection of the user against falls from heights must take into account the fall arrest equipment limiting the maximum value of the fall arresting force acting on the user during the fall arrest to max. 6 kN (e.g. energy absorber with a rope or a retractable type fall arrester).
- Make sure that the device was installed vertically, on a flat, stable and paved surface. The surface must be able to withstand the load.
- Use of the ALUQUAD device by more than three persons simultaneously is prohibited.
- It is recommended that the device is transported and assembled by at least two persons.
- Always ensure that the anchor device or structural anchor point used in a fall arresting system is correctly set up, and work using it in such a way as to reduce the risk of a fall, as well as the height of the fall. Always position the anchor device/anchor point above the workplace of the user. The shape and design of the anchor device/structural anchor point must prevent the equipment from being spontaneously disengaged. The permissible minimum static strength of the device/anchor point is 14 kN. It is recommended to use approved and marked, fixed structural anchor points complying with EN 795.

4.4. BASIC RULES OF USE FOR PERSONAL PROTECTIVE EQUIPMENT

- The PPE may only be used by persons trained and competent in maintaining safety.
- The equipment must not be used by persons whose health condition could pose an additional risk to their own safety during normal use and rescue operations.
- A separate emergency action plan must be drawn up for each workplace with possible hazards taken into account.
- The structure of the equipment may not be altered in any way without a prior written consent of the manufacturer.
- All repairs may only be carried out by the manufacturer of the equipment or persons authorised by it.
- Personal protection equipment may not be used beyond their operational limits or for purposes other than their intended use.
- The user should maintain the personal protection equipment in a good condition.
- Before use, make sure that equipment elements installed in the fall arrest system conform with the requirements. Periodically check the connection and adjustment of equipment parts to avoid their accidental loosening or disengaging.
- It is prohibited to combine the equipment components where the safe operation of one component affects or interferes with the safe operation of another.
- If the equipment is to be marketed and/or used in a country other than that in which it was originally intended, the introducing party must provide instructions for use, maintenance, scheduled inspection and repairs written in the language of the country in which the product is to be used.



- Full body harness (conforming to EN 361) are the only permitted supporting device which may be used together with a fall arrest system.
- In the case of the full body harness, to attach the fall arrest system, use the attachment points marked with a capital 'A' only.
- It is mandatory to check the required free space below the user at the workplace before each use of the fall arrest system so that, in the event of a fall, the user does not collide with the ground or any other obstacle present in the fall path. The required free space must be calculated with reference to the instructions manual of the used equipment.
- There are a number of hazards that can affect the operation of the equipment, and appropriate precautions must be taken when using the equipment, and particularly when:
 - the safety ropes or lines move across sharp edges;
 - any defects such as nicks, abrasions and corrosion exist;
 - exposure to weather conditions;
 - swinging falls;
 - presence of extreme temperatures;
 - use of chemicals;
 - presence of live voltage.

4.5. INSPECTION

Before each use of PPE, it is mandatory to carry out an initial check of the equipment for proper operation to ensure that its condition enables safe use. When carrying out the initial check of the equipment, examine all components for damage, excessive wear, corrosion, abrasions, cuts or malfunctions, and particularly:

- pay attention to buckles, adjustment elements, anchor points, straps, seams, loops in the case of safety harnesses and belts;
- in the case of energy absorbers, pay attention to the attaching hooks, straps, seams, housings, snap hooks;
- in the case of textile lanyards, lifelines or guidelines: ropes, loops, thimbles, snap hooks, attaching elements and splices;
- in steel ropes, safety lanyards or securing ropes, pay attention to the rope, its wires, clamps, terminals, loops, thimbles, snap hooks and adjusting elements;
- in pulled, retractable type fall arresters, pay attention to the rope or the strap, correct operation of the unwinding mechanism and the brake, housing, energy absorbers and snap hooks;
- in the case of guided type fall arresters, pay attention to the body of the fall arrester itself, operation of the sliding mechanism, the locking mechanism, rivets and bolts, the snap hook, the energy absorber;
- in the case of snap hooks - the main body, the rivets, the locking device, operation of the locking mechanism;
- in the case of stands - the legs, safety pins, eyebolts, feet, chain, connectors.

4.6. PERIODIC INSPECTION

Following each 12-month period of use, the PPE must be taken out of service for a scheduled maintenance inspection. The scheduled inspections must be carried out by a qualified professional only, with knowledge and skills required to carry out scheduled inspections of PPE. The scheduled inspection may be carried out either by the manufacturer or by its authorised entities. For certain types of complex equipment, e.g. certain types of retractable type fall arresters, annual examination can only be carried out by the manufacturer or an entity designated by it. The maximum permitted service life of the device before the next inspection to be performed by the user shall be determined during the periodic inspection. The results of the inspection should be recorded in the operation sheet. Regular scheduled maintenance significantly improves the equipment's life, as well as the safety of its users which depends on the performance and durability of the equipment. When carrying out a scheduled inspection, ensure you check the markings on the equipment for their legibility.



4.7. SERVICE LIFE

The maximum service life of the ALUQUAD device is unlimited, however, it depends on the degree of use and ambient conditions. Using the equipment in harsh conditions, marine environment, on sharp edges, when exposed to high temperatures or aggressive substances, etc., can mean that the equipment must be withdrawn from use even after one use.

4.8. DECOMMISSIONING

The PPE must be taken out of service as soon as any doubts arise as to its condition in terms of safe use. Such PPE may not be reused until the manufacturer or an entity authorised by it has confirmed in writing that the equipment has been put through comprehensive testing.

4.9. DECOMMISSIONING AFTER A FALL ARREST

When used and after a fall arrest, the device must be immediately decommissioned. Next, the device must be subjected to a thorough factory inspection. The factory inspection may be performed by the following:

- manufacturer
- person authorised by the manufacturer
- company designated by the manufacturer. The suitability of the device for further use and the permitted period of use until the next manufacturer inspection are determined during the inspection. The relevant note should be provided in the operating sheet.

4.10. TRANSPORT

Handle the PPE in a protected container (e.g. a moisture-resistant textile bag, plastic bag, steel or plastic boxes) to protect it from damage or exposure to moisture.

4.11. MAINTENANCE AND STORAGE

The equipment can be cleaned using methods which do not adversely affect the materials used in its manufacture. In the case of textile products, use mild detergents intended for delicate fabrics; clean by hand or in a machine and rinse with water. Plastic parts may only be cleaned with water. If the equipment gets wet during operation or cleaning, allow it to dry naturally, and protect it from heat sources located in direct vicinity. In the case of products made of metals, some parts (spring, pin, hinge, etc.) can be lubricated regularly with a small amount of lubricant to ensure better performance. In the case of other maintenance and cleaning procedures, follow the detailed instructions specified in the user manual of the used equipment. Store the PPE loosely in its package, in a well-ventilated place, and ensure it is protected from direct sunlight, ultraviolet degradation, moisture, sharp edges, extreme temperatures and corrosive substances or strong agents.

5. CHAPTER 5 – USE FOR RESCUE PURPOSES ACCORDING TO EN 1496/B (PPE)

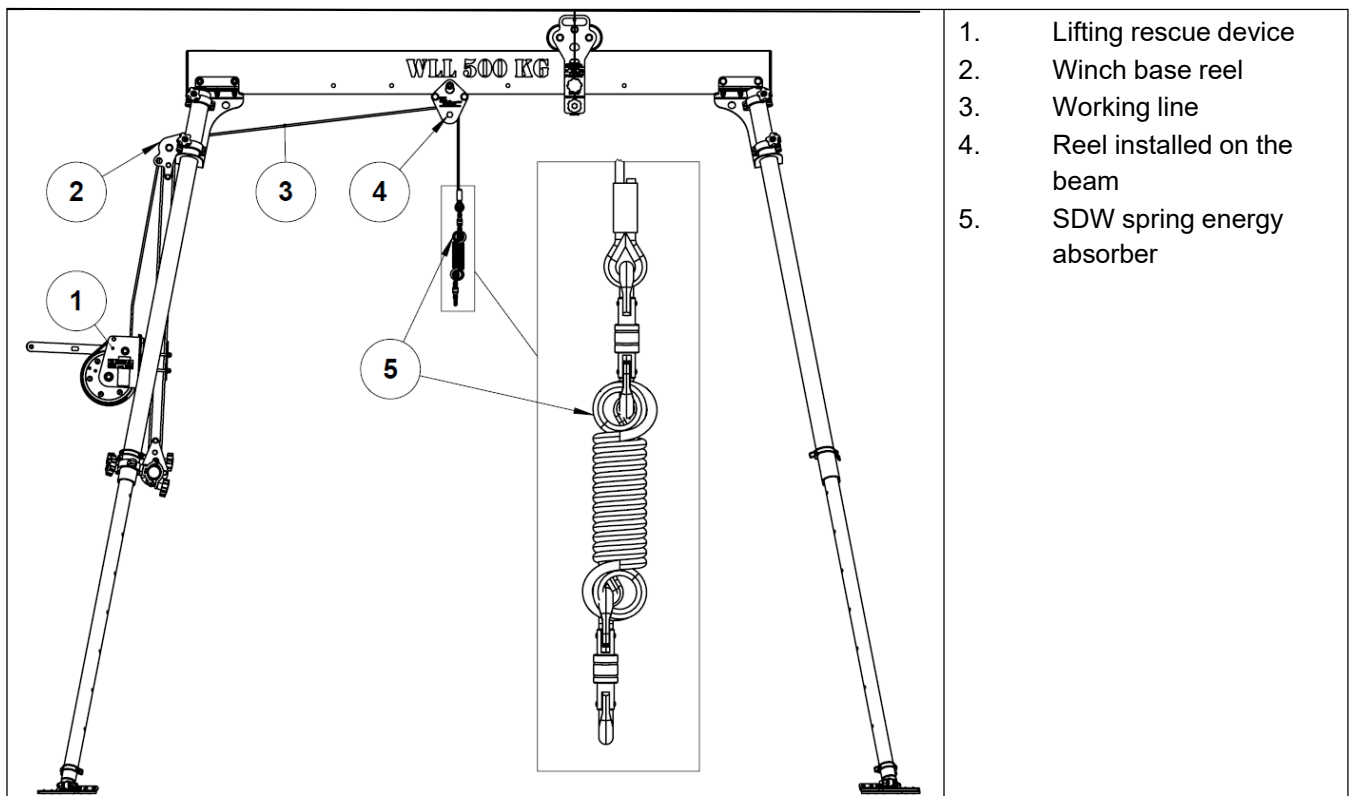
5.1. GENERAL PRECAUTIONS (USE FOR RESCUE PURPOSES):

- During the use of the ALUQUAD device together with series RUP and CRW devices, use an additional fall arrest system (conforming to EN 363).
- Fall arrest and rescue/descent systems used together with this device must conform to the effective European standards (EN 795 and the TS 16415 document for anchor devices; EN 362 for connectors; EN 361 for safety harnesses; EN 360; EN 1496 for lifting rescue equipment; EN 1497 for rescue and descent harnesses; EN 341 for rescue and descent equipment).

5.2. ALUQUAD USE FOR RESCUE PURPOSES

- The ALUQUAD device may be used for rescue purposes together with lifting rescue equipment of the RUP and CRW series.
- The RUP502-U device may only be installed on the winch base (see paragraph 2.2.1).
- The RUP504 device may be installed on the winch base (see p. 2.2.2) and on the load truck (see p. xxx)
- Rope installation for the lifting rescue device (see paragraph 2.3).
- Installation of the CRW200 / CRW300 devices (see paragraphs 5.4 and 5.5)
- The RUP series lifting rescue equipment should be used together with a SDW rescue energy absorber installed at the end of a steel rope!

CAUTION! Loads may not be lifted/lowered during rescue operations.





5.3. USE OF LIFTING EQUIPMENT AS EQUIPMENT PROTECTING AGAINST FALLS FROM HEIGHTS

Such a device may be used as equipment protecting against falls from heights according to the Directive 2009/104/EC Annex II Section 3.1.2.

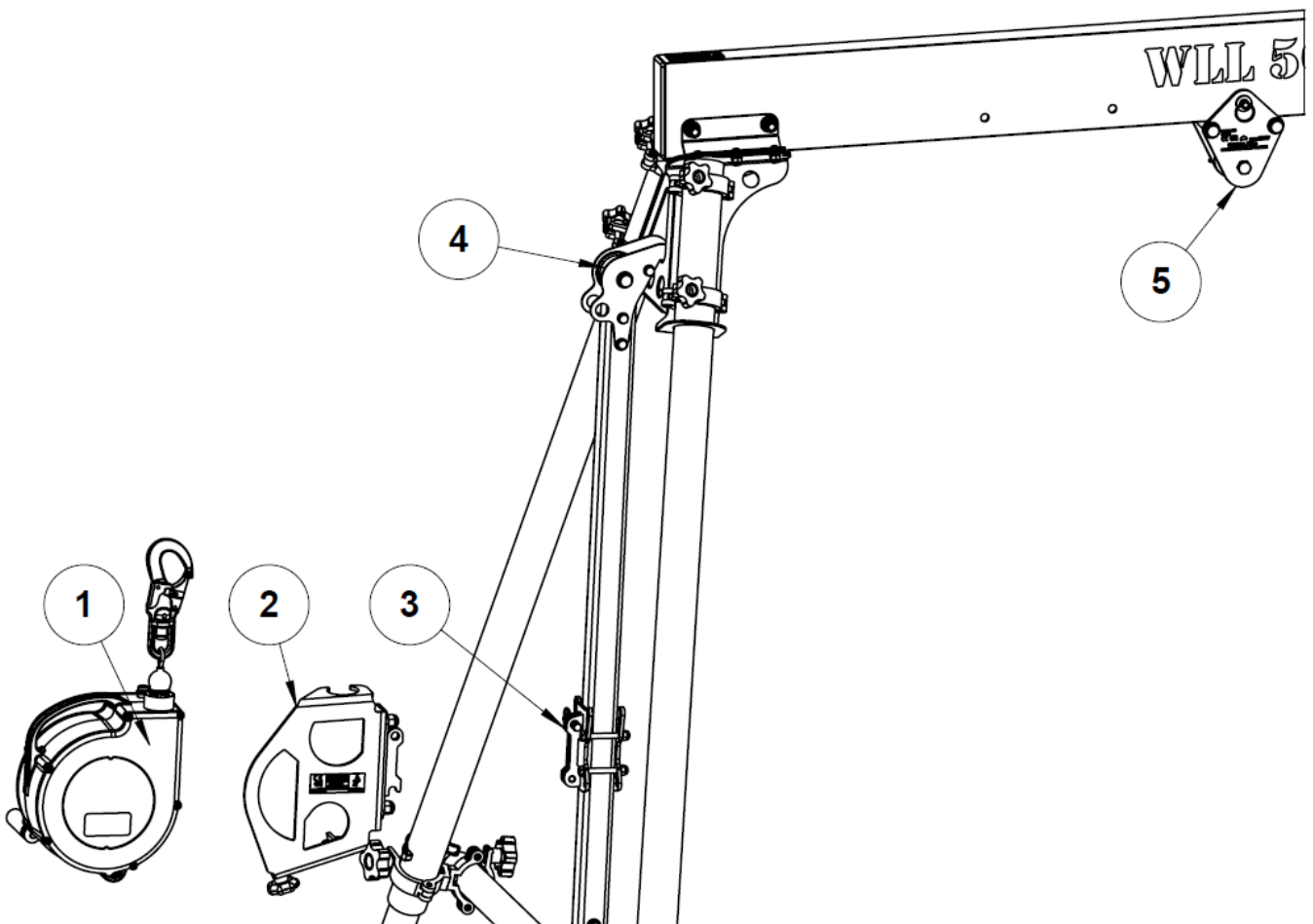
- The use of working equipment by the staff to lift loads should always be supervised.
- Ensure adequate communication with the person lifted using a stand. Always ensure their safe rescue in the case of a hazard.
- During rescue operation, always use the SDW energy absorber connected to the end of a working rope of the lifting rescue device.
- Never exceed the WLL value.
- Special care must be taken. Do not overload parts of the device. When using load handling equipment for rescue purposes, the user must pay special attention and often check the condition of the units of the kit (rope, pulleys, anchor points).
- The safety factor should be at least 10:1 for safety purposes.
- For safety reasons, it is more reasonable to use two lifting devices (one for load handling and the other one for personal protection).

5.4. CRW200 RESCUE HOIST INSTALLATION

The CRW200 (1) device may be installed on the winch base (3) using the CRW200-UB (2) adapter.

Guiding the working rope using a reel (4) and a reel on the beam (5).

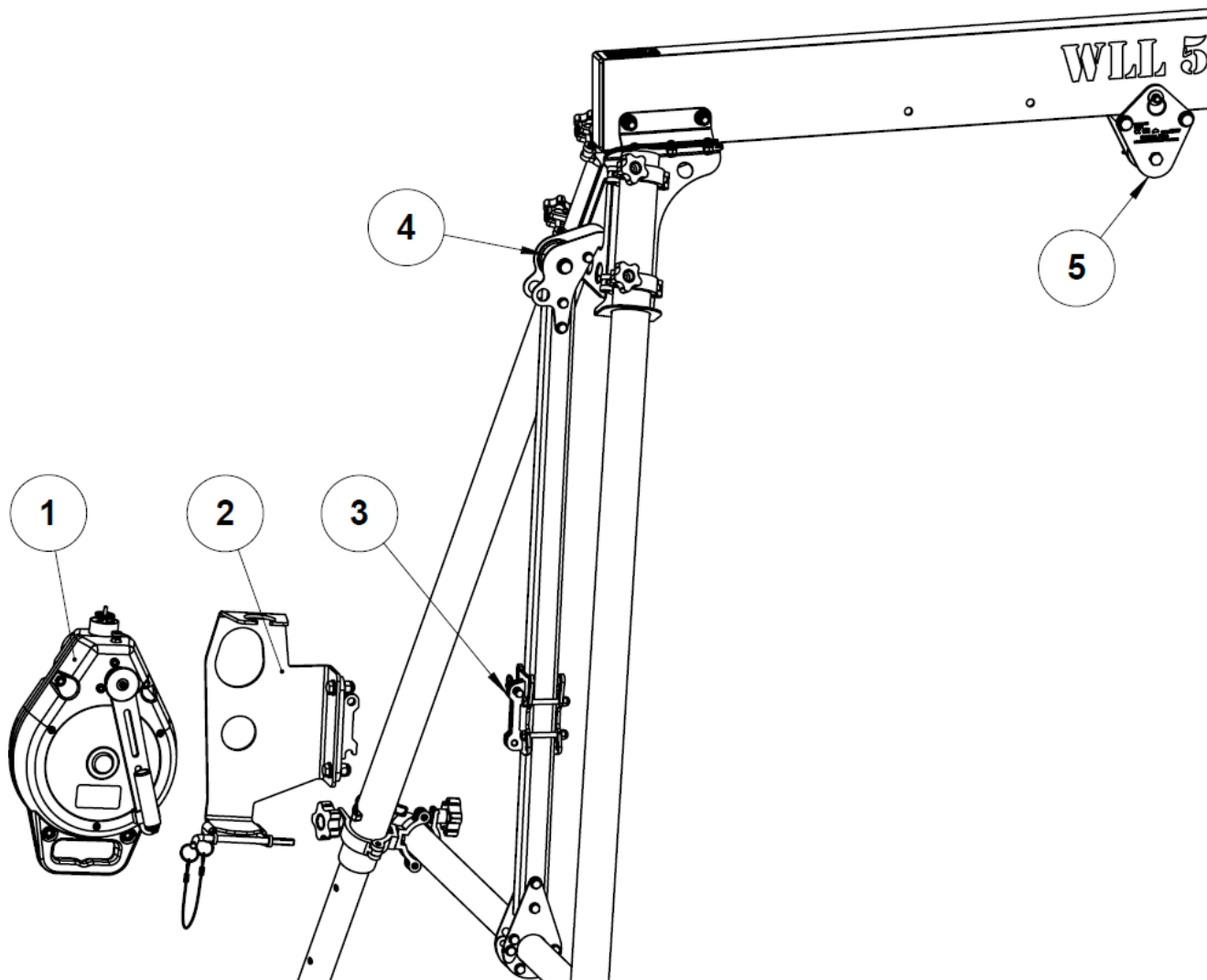
The device should be secured using an automatic pin in a multi-purpose fixture (3) and the knob in the adaptor (2).



5.5. CRW300 RESCUE HOIST INSTALLATION

The CRW300 (1) device may be installed on the winch base (3) using the CRW300-UB (2) adapter. Guiding the working rope using a reel (4) and a reel on the beam (5).

The device should be secured using an automatic pin in a multi-purpose fixture (3) and the knob in the adaptor (2).



MANUFACTURER:

PROTEKT Grzegorz Łaskiewicz Sp. z o.o., 93-403 ŁÓDŹ, ul. Starorudzka 9, POLAND,

Phone: +48 (42) 680 20 83, fax: +48 (42) 680 20 93

www.protekt.com.pl



OPERATION SHEET

The user is obliged to maintain the operation sheet and to fill it with the required information. Before the first use of the device, the operation sheet should be filled only by a person competent in the field of personal protection equipment at the site of the user. All information regarding the equipment, such as periodic inspections, repairs, reasons for decommissioning should be recorded in the operation sheet by a competent person. The operation sheet should be maintained throughout the entire useful life of the product. Do not use the equipment without a valid operation sheet.

| PART NUMBER OF THE DEVICE | | | | |
|--|--|---|--|--|
| SERIAL NUMBER OF THE BEAM BEAM LENGTH | | | | |
| SERIAL NUMBER OF THE LOAD TRUCK | | | | |
| DATE OF MANUFACTURE | | | | |
| DATE OF PURCHASE | | | | |
| DATE OF FIRST APPROVAL FOR USE | | | | |
| USER NAME | | | | |
| REGISTER OF PERIODIC INSPECTIONS, MAINTENANCE AND REPAIRS | | | | |
| DATE | INSPECTION / REPAIR CAUSE | RECORDED FAULTS, PERFORMED REPAIRS | NAME AND SIGNATURE OF THE AUTHORISED PERSON | DATE OF NEXT INSPECTION |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

