

ANSI/ASSE Z359 - Requirements for Proper Use and Maintenance of Full Body Harnesses

These are general requirements and information provided by ANSI/ASSE Z359, the Manufacturer of this equipment may impose more stringent restrictions on the use of the products they manufacturer, see the Manufacturer's instructions.

1 - GENERAL INFORMATION

1.1 - The user's organization shall retain the manufacturer's instructions and make them readily available to all users. Users shall read and perfectly understand the information provided by the manufacturer before using the device, shall comply with all instructions regarding the inspection, maintenance and storage of the equipment and make sure that the device is in perfect condition and working properly.

Warning: rescue work, tree climbing and works at height are activities with a high degree of risk, which may lead to accidents and even death.

The user takes complete responsibility for the risks deriving from these activities and from using our devices. This device can be used only by individuals medically fit. It is essential that the users of this type of equipment receive proper training and instruction, including detailed procedures for the safe use of such equipment in their work application. ANSI/ASSE Z359.2 establishes guidelines and requirements for an employer's managed fall protection program, including policy statements, duties and responsibilities, training and evaluations, minimum requirements for fall protection procedures, eliminating and controlling fall hazards, rescue procedures, incident investigations, and evaluating program effectiveness. **1.2** - If the user has the slightest doubt concerning the efficiency of the device, it shall be replaced immediately, particularly after having used it to arrest a fall.

1.3 - Minimum resistance of anchoring points, on both natural and artificial elements, can be at least 12 kN. The assessment of those made on natural elements (rocks, plants, etc.) is possible only empirically, and can therefore be performed by a competent expert, while those on artificial elements (metal, concrete, etc.) can be calculated scientifically, and can therefore be performed by qualified personnel.

1.4 – 8W0.320 SIERRA DUO ANSI is tested in accordance ANSI/ASSE

Z359.11-2014 by testing laboratory no. 1539 DOLOMITICERT scarl - zona industriale Villanova - 32013 Longarone BL - Italia, meeting standard ISO 17025.

This device is inspected in accordance with the procedures of the Quality System certified according to the UNI EN ISO 9001.

Warning: laboratory tests, inspections, information and norms do not always manage to reproduce what actually happens in practice, and so performance under real usage conditions in a natural environment may differ, sometimes even considerably. The best information can be gained by continual practice under the supervision of skilled, expert, qualified individuals.

2 - WARNINGS

- It is strictly forbidden to altering and/or repair the device, only the equipment manufacturer, or persons or entities authorized by the manufacturer, are allowed to repair the equipment.
- Before use make sure that the device is suitable for the purpose: only the techniques that are not crossed out are permitted, any other use is considered improper and therefore potentially dangerous.
- Verify combinations of components or sub-systems, or both, they have not to affect or interfere with the safe function of each other.
- Improper use, deformation, falls, wear, contact with chemical substances, chemical contamination, exposure to direct sunlight (UV degradation), heat sources and flames, exposure to temperatures below -20°F or higher than +120°F, are some examples of other causes that may produce a harmful effect, or reduce, limit or end the life of the device. We strongly suggest using the device personally in order to continuously monitor the degree of protection and efficiency.
- At low temperatures, the presence of moisture can form ice that, on textile devices, can reduce flexibility and increases the risk of cutting and abrasion.
- Pay particular attention when using the equipment around moving machinery and electrical hazards, sharp edges or abrasive surfaces.

3 - MAINTENANCE AND STORAGE

- Equipment which is in need of, or scheduled for maintenance shall be tagged as "unusable" and removed from service.
- Maintenance and storage of equipment shall be conducted by the user's organization, consists of washing in warm drinking water (90°F), possibly with the addition of neutral detergent. Rinse and, without spinning, leave it to dry without leaving it in the direct sunlight.
- In addition, if necessary, disinfect the device, soaking it in warm water containing 1% of sodium hypochlorite (bleach). Rinse with drinking water and, without spinning, leave it to dry without leaving it in the direct sunlight. Avoid sterilising textile devices in an autoclave.
- Equipment shall be stored in a manner as to preclude damage from environment: maintain temperature between 5-30°C (40-85 °F) and relative humidity between 40-90%, avoid exposure to light, UV, sharp edges, excessive moisture, oil, chemicals and their vapours or other degrading elements.
- Exceptional maintenance and storage issues, which may arise due to unusual conditions of use, shall be addressed with the manufacturer.

4 - INSPECTION

Inspection criteria for the equipment shall be set by the user's organization. Such criteria for the equipment shall equal or exceed the criteria established by ANSI/ASSE Z359.2:13 or the manufacturer's instructions, whichever is greater. The outcome of these periodic inspections shall be recorded on the device's inspection chart or a designated register. When inspection reveals defects in, damage to, or inadequate maintenance of equipment, the equipment shall be permanently removed from service or undergo adequate corrective maintenance, by the original equipment manufacturer or their designate, before return to service.

In addition to the inspection requirements set forth in the manufacturer's instructions, the equipment shall be inspected by the user before and after using the device and additionally by a competent person, other than the user, at interval of no more than one year for:

- absence or illegibility of markings,
- absence of any elements affecting the equipment form, fit or function,
- evidence of broken stitches fixed to load indicators,
- evidence of defects in or damage to hardware elements including cracks, sharp edges, deformation, corrosion, chemical attack, excessive heating, alteration and excessive wear,

- evidence of defects in or damage to strap or ropes including fraying, unsplicing, unlaying, kinking, knotting, roping, broken or pulled stitches, excessive elongation, chemical attack, excessive soiling, abrasion, alteration, excessive aging and excessive wear.

5 - DEVICE LIFE

The lifespan of metal components is indefinable, theoretically unlimited, while for those affected by aging the date beyond which the device must be replaced is calculated after 10 years from first use and in any case no later than 12 years from the date of manufacture as long as: maintenance and storage are carried out as described in point 3, the results of pre-use, post-use and periodic inspections are all positive, and the device is used correctly.

6 - LEGAL OBLIGATIONS

Professional and recreational activities are often regulated by specific national or governmental laws that may impose specific limits and/or requirements for the personal fall arrest systems, which includes the Full Body Harness in their components. The user is obliged to know and apply these laws, which may in some cases impose obligations different from those contained in this information.

7 - GUARANTEE

The manufacturer guarantees that the device complies with regulations in force at the time of production. The guarantee covering faults is limited to production defects and raw materials. It does not include wear and tear, oxidation, damages caused by improper use and/or during competition, incorrect maintenance, transport, conservation, storage, etc. The guarantee becomes void as soon as the device is modified or tampered with. The validity corresponds to the legal guarantee of the country where the device was sold by the manufacturer, with effect from the date of sale. After this period no claim can be made against the manufacturer. Any request for repair or replacement under this warranty shall be accompanied by a proof of purchase. If the defect is accepted, the manufacturer, at its sole discretion, will repair, replace or refund the device. Under no circumstances does the manufacturer's liability extend beyond the invoice price of the device.

8 - SPECIFIC INFORMATION

8W0.320 SIERRA DUO ANSI (fig. 1) is a full body harnesses (FBH) compliant with ANSI/ASSE Z359.11:2014, fitted with two attachment points, one dorsal (D) and one sternal (C) consisting of two attachment elements.

It is intended to be used with other components of a personal fall arrest system that limit maximum arrest forces to 1800 pounds (8 kN) or less.

8.1 - Nomenclature of the parts (fig. 1)

A Shoulder straps | **B** Leg loops | **C** Sternal attachment point composed by two elements | **D** Dorsal attachment point | **E** Leg loops adjustment buckles | **F** Sternal webbing | **G** Sternal webbing adjustment buckle | **H** Shoulder straps adjustment buckles | **I** Load indicators | **L** Gear loops.

Metal material: carbon steel

Textile materials: polyester, polyamide

8.2 - Wearability

- Check the size suitability (SIZE table),
- loosen the shoulder straps (A) and the leg loops (B),
- unthread the sternal webbing (F) from its buckle (G) - (fig. 2),
- holding the harness by the dorsal attachment point (D) spread out the shoulder straps (A),
- slip your legs through leg loops (B),
- slip your arms into the shoulder straps (A),
- fasten the sternal buckle (G),
- tighten the adjustment straps (fig. 4),
- check that the attachment elements (dorsal and sternal) are correctly positioned (fig. 5),
- insert the excess webbing into the elastic loops.

Important:

- before using the harness, in an absolutely safe position, carry out movements and suspension tests to ensure that it is correctly adjusted and comfortable for the intended use;
- check the buckles regularly during use;
- when not in use, unused lanyard legs that are still attached to a Full Body

Harness D-ring should not be attached to a work positioning element or any other structural element on the Full Body Harness.

8.3 - Use in a fall arrest system

For the sake of safety in case of risk of falls from a height, it is essential to:

- assess the risks and make sure that the whole system, where this device is only a component, is reliable and safe,
- prepare a rescue plan to deal with any emergencies possibly arising while the device is being used,
- have the means at hands to implement the rescue plan,
- make sure that the anchor device or the anchor point is always positioned as high up as possible, and that work is done in such way as to reduce potential falls and relevant heights to a minimum,
- connect the harness to other devices (e.g. energy absorbers, ropes, etc.) to achieve a fall arrest system, as it is only one component of a fall arrest system,
- use an energy absorber to limit maximum arrest forces to 1800 pounds (8 kN),
- carefully assess the free height under the user (clearance). Examples of main factors can be: height of a potential fall, Full Body Harness Stretch (Hs), rope paid out, the length of any attachment element extender, the stretch in any energy dissipaters or absorbers, the height of the user and the "pendulum" effect.

Note: Full Body Harness Stretch (Hs) is the amount the FBH component of a personal fall arrest system will stretch and deform during a fall (fig. 6 and 7), can contribute to the overall elongation of the system in stopping a fall. It is important to include the increase in fall distance created by FBH Stretch as well as the FBH connector length, the settling of the user's body in the FBH, and all other contributing factors when calculating total clearance required for a particular fall arrest system. 8W0.320 SIERRA DUO ANSI Full Body Harness Stretch (Hs) is by far less than 18 in. (457 mm).

Important: in a fall arrest system, it is mandatory to use a complete harness in compliance with current regulations.

Warning: if the load indicators (I) are unstitched, replace the device immediately (fig.8).

8.4 - Acceptable use for attachment elements

Warning: connect to the attachment point with soft loops carabiner connectors only. Plain hooks cannot be used!

8.4.1 - Use with dorsal attachment

The dorsal attachment element shall be used as the primary fall arrest attachment (fig. 9), unless the application allows the use of an alternate attachment. It may also be used for travel restraint or rescue. Post fall, supported by the dorsal attachment the user will result in an upright body position with a slight lean to the front with some slight pressure to the lower chest.

8.4.2 - Use with sternal attachment

Warning, danger of death! The sternal attachment point (C) is composed by two attachment elements. Never connect to only one attachment element (fig. 10).

The sternal attachment may be used as an alternative fall arrest attachment in applications where the dorsal attachment is determined to be inappropriate by a competent person, and where there is no chance to fall in a direction other than feet first. Accepted practical uses for a sternal attachment include, but are not limited to, ladder climbing with a guided type fall arrestor, ladder climbing with an overhead self-retracting lifeline for fall arrest, work positioning, and rope access. The sternal attachment may also be used for travel restraint or rescue. Post fall, supported by the sternal attachment the user will result in roughly a sitting body position with weight concentrated on the thighs, buttocks and lower back. Supporting the user during work positioning by this sternal attachment will result in an approximate upright body position. When the sternal attachment is used for fall arrest, the competent person evaluating the application should take measures to ensure that a fall can only occur feet first. This may include limiting the allowable free fall distance.



8W0.320 SIERRA DUO ANSI

ANSI USE

WWW.KONG.IT



read and always follow the information supplied by the manufacturer




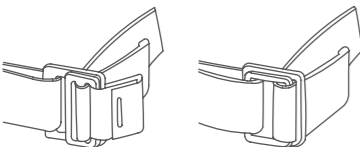
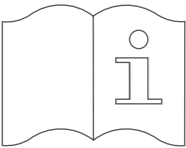


Find the digital version of the information supplied by the manufactured here:
<https://www.kong.it/en/product/sierraduo>

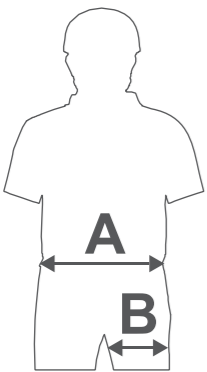
Y5635000BAK

KONG S.p.A. - Via XXV Aprile, 4 23804 Monte Marenzo (LC) - Italy
+39 0341 630506 | info@kong.it

MARKINGS

<p>SIERRA DUO ANSI 8W0.320</p>	<p>Model</p>		
<p>POLYESTER</p>	<p>Material</p>		
 <p>MM/YYYY</p>	<p>Production date</p>		
	<p>Dorsal attachment point</p>		
	<p>Sternal attachment point</p>		
	<p>Regulation and blocking of the webbing</p>		
	<p>Always read and follow the information supplied by the manufacturer</p>		

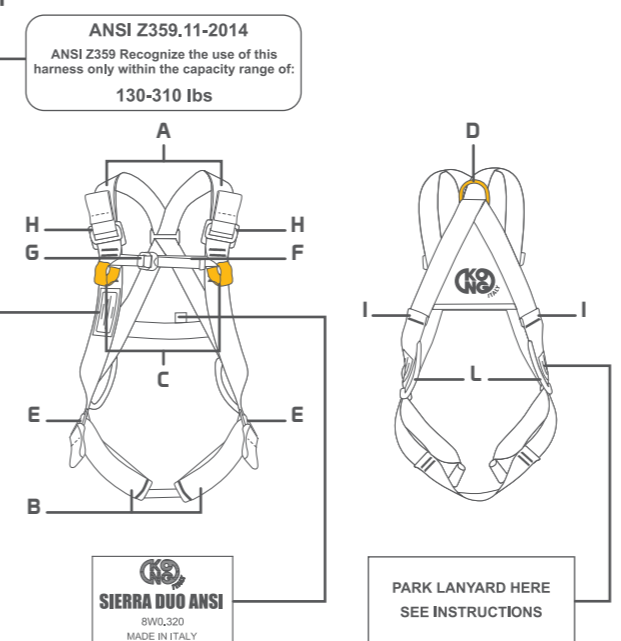
SIZE

		<p>M/L</p>	<p>XL</p>
	<p>A (in)</p>	<p>28.34 - 41.34</p>	<p>35.04 - 51.28</p>
	<p>B (in)</p>	<p>19.69 - 24.41</p>	<p>24.41 - 31.49</p>
	<p>△ (oz)</p>	<p>29.98</p>	<p>31.75</p>

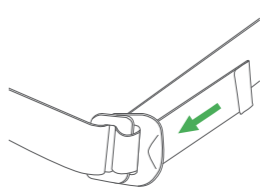
DRAWINGS

1

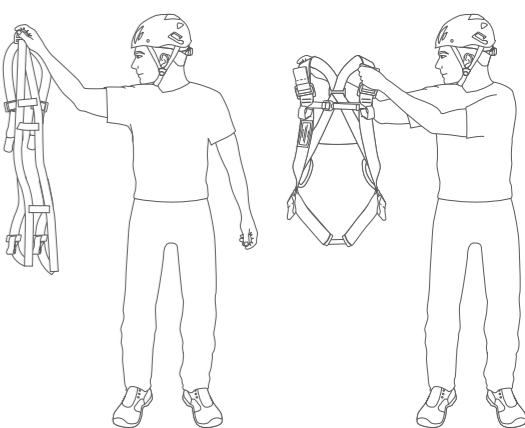
ANSI Z359.11-2014
ANSI Z359 Recognize the use of this harness only within the capacity range of:
130-310 lbs



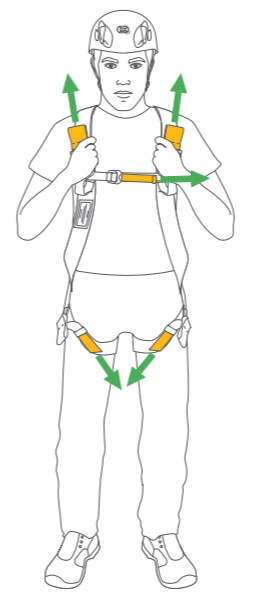
2



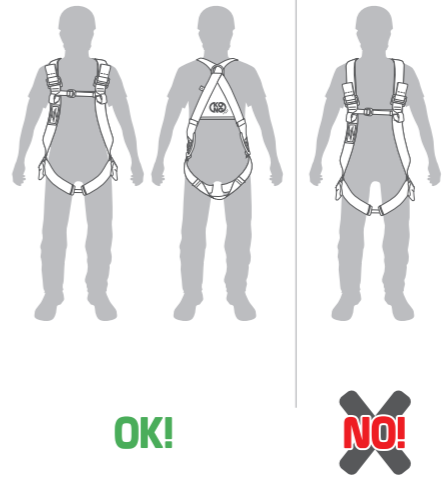
3



4

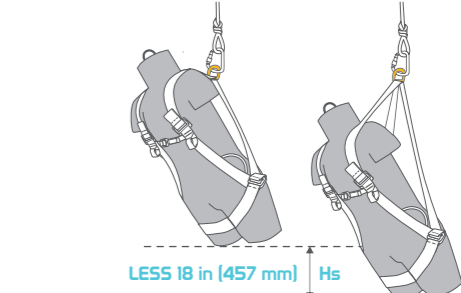


5



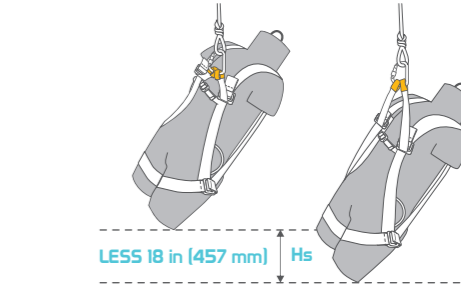
6

PRE-TEST POST-TEST

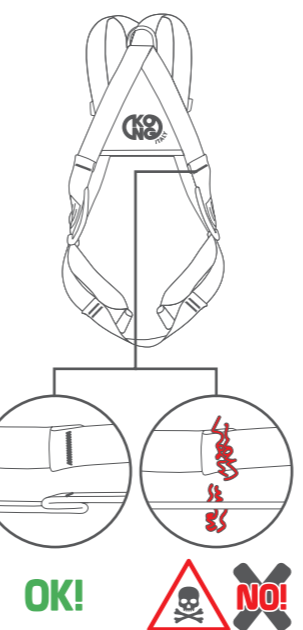


7

PRE-TEST POST-TEST

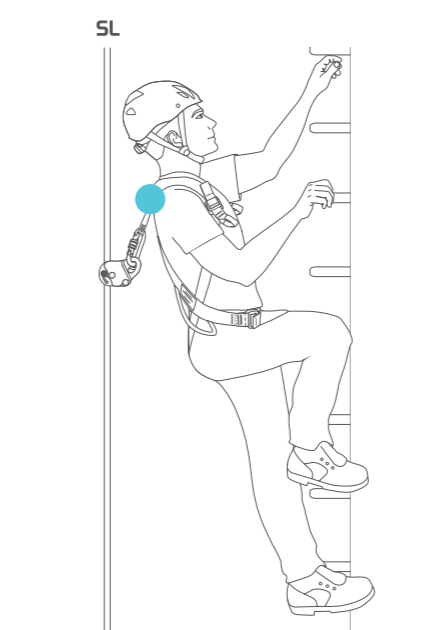


8

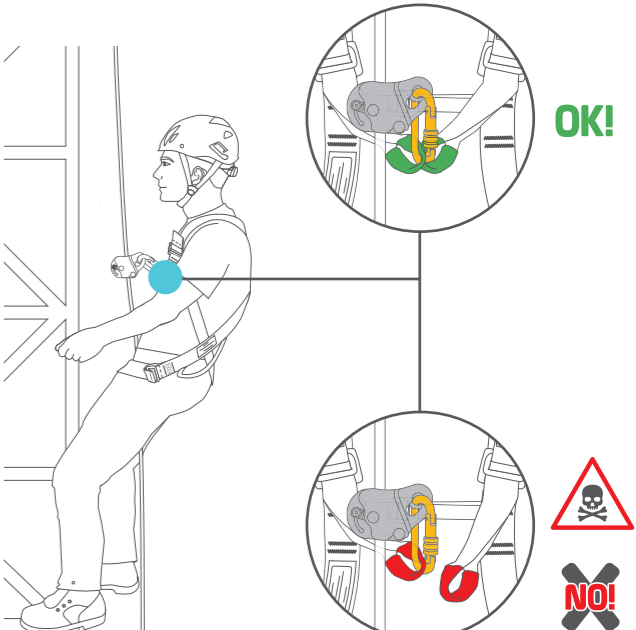


9

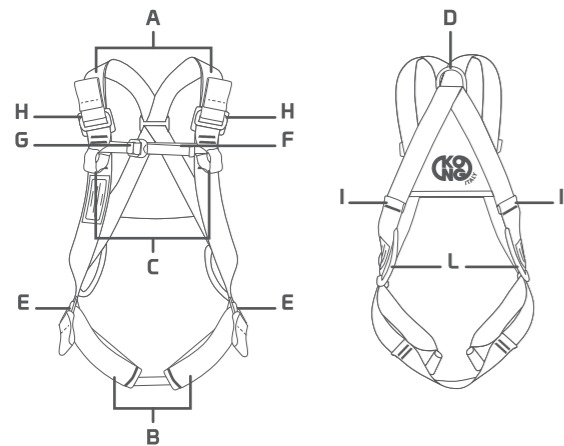
SL



10



NOMENCLATURE



A Shoulder straps | B Leg loops | C Sternal attachment point composed by two elements | D Dorsal attachment point | E Leg loops adjustment buckles | F Sternal webbing | G Sternal webbing adjustment buckle | H Shoulder straps adjustment buckles | I Load indicators | L Gear loops
Metal material: carbon steel
Main textile materials: polyester, polyamide

A Spallacci | B Cosciali | C Punto di attacco sternale composto da due elementi | D Punto di attacco dorsale | E Fibbie di regolazione dei cosciali | F Fettuccia sternale | G Fibbia di regolazione della fettuccia sternale | H Fibbie di regolazione degli spallacci | I Indicatori di carico | L Porta-materiali
Materiale metallico: acciaio al carbonio
Principali materiali tessili: poliestere, poliammide

A Bretelles | B Passages de jambe | C Point d'attache sternal composé de deux éléments | D Point d'attache dorsal | E Boucles d'ajustement des passages de jambe | F Sangle sternale | G Boucle d'ajustement de la sangle sternale | H Boucles d'ajustement des bretelles | I Indicateurs de charge | L Porte-matériels
Matériau métallique : acier au carbone
Principaux matériaux textiles : polyester, polyamide

A Schultergurte | B Beinschlaufen | C Sternal Befestigungspunkt, bestehend aus zwei Elementen | D Dorsaler Befestigungspunkt | E Beinschlaufen Verstell schnallen | F Sternum-Gurtband | G Sternum schnalle | H Schultergurte Verstell schnallen | I Lastindikatoren | L Materialschlaufen
Metallisches Material: Kohlenstoffstahl
Haupttextilmaterialien: Polyester, Polyamid

A Hombrosas | B Perneras | C Punto de enganche esternal formado por dos elementos | D Punto de enganche dorsal | E Hebillas de ajuste de las perneras | F Correa esternal | G Hebilla de ajuste de la correa esternal | H Hebillas de ajuste de las hombros | I Indicadores de carga | L Anillos portamaterial
Material metálico: acero al carbono
Principales materiales textiles: poliéster, poliamida

SPECIFIC INFORMATION

Master Text

Category III Personal Protective Equipment 8W0.320 SIERRA DUO ANSI (fig. 1) is a full body harness equipped with a dorsal attachment point (D) – marked with letter A – and a sternal attachment point (C) composed by two elements (marked with letter A/2) certified according to the norm EN 361:2002, suitable for connection with fall arrest systems conforming to EN 363.

Wearing

- Check the size suitability (SIZE table);
- loosen the shoulder straps (A) and the leg loops (B);
- remove the sternal webbing (F) from its buckle (G) - (fig. 2);
- holding the harness by the dorsal attachment point (D) spread out the shoulder straps (A);
- slip your legs through leg loops (B);
- slip your arms into the shoulder straps (A);
- fasten the sternal buckle (G);
- tighten the adjustment straps (fig. 4);
- check that the attachment elements (dorsal and sternal) are correctly positioned (fig. 5);
- insert the excess webbing into the elastic loops.

Important:

- before using the harness, in an absolutely safe position, carry out movements and suspension tests to ensure that it is correctly adjusted and comfortable for the intended use;
- check the buckles regularly during use.

Uses

The sternal (C) and dorsal (D) attachment points of the harness (marked with letters A/2 and A) are suitable for connection to fall-arrest systems that allow the user to reach areas or positions where there is a risk of a fall and limit the length and force of impact on the user's body in the event of a fall. Examples of correct use with connection to the dorsal (D) – (fig. 6) and sternal (C) – (fig. 7 and 8) attachment points.

Compatibility

This device is designed to be used with:

- ropes according to EN 1891;
- lanyards according to EN 354;
- connectors according to EN 362;
- rope adjustment devices according to EN 12841;
- fall arrester devices according to EN 353, EN 360;
- energy absorbers according to EN 355.

Caution, danger of death:

- the sternal attachment point (C) is composed by two attachment elements marked with letter A/2. Never connect to only one attachment element (fig. 9);
- if the load indicators (I) are unstitched, replace the device immediately (fig. 10);
- this device is only a part of a fall arrest system; therefore, it must be connected to other devices (e.g. energy absorbers, ropes, etc.) in order to create a fall arrest system that complies with EN 363.

Checks before and after use

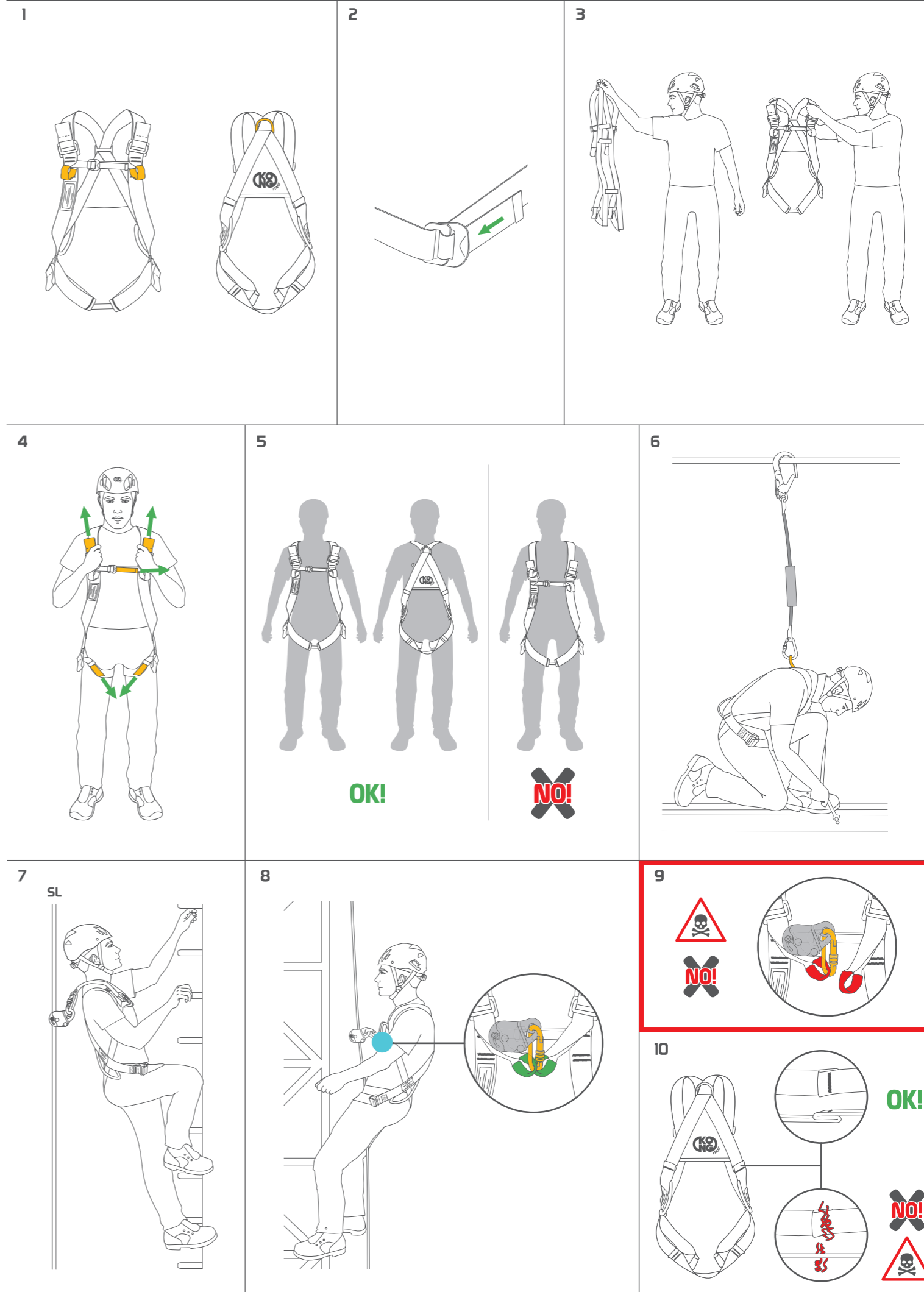
Before and after use, make sure that the device is in an efficient condition and that it is working properly, in particular, check that:

- it is suitable for the intended use;
- textile parts do not have cuts, burns, chemical residues, excessive hair, wear, in particular check the areas in contact with metal components (buckles, attachment point, etc.);
- stitching is intact, and there are no cut or loose threads;
- the seams of the load indicators (I) are not torn;
- metal parts are free of cracks, corrosion, mechanical deformation and that any wear and tear is only of an aesthetic nature;
- buckles work correctly (adjusting, closing and locking);
- markings, including labels, are legible.

Certification

This device has been certified by the notified body n° 0123 TÜV SÜD Product Service GmbH Daimlerstraße 11 - 85748 Garching - Germany

DRAWINGS



8W0.320 SIERRA DUO ANSI



EU USE

WWW.KONG.IT



Read and always follow the information supplied by the manufacturer
 Leggere e seguire sempre le informazioni fornite dal fabbricante
 Toujours lire et suivre les informations fournies par le fabricant
 Die Angaben des Herstellers müssen immer gelesen und befolgt werden
 Lea siempre y respeta la información proporcionada por el fabricante



Download the declaration of conformity at:
 Scarica la dichiarazione di conformità da:
 Téléchargez la déclaration de conformité sur:
 Laden Sie die Konformitätserklärung herunter von:
 Descargar la declaración de conformidad en:
www.kong.it/conformity



Please calculate the lifespan of the device according to:
 Calcola la vita utile del dispositivo in accordo a:
 Calculez la durée de vie de le dispositif selon:
 Berechnen Sie die Lebensdauer der Vorrichtung nach:
 Calcular la vida útil del dispositivo según:
www.kong.it/en/life/

Y5633000BEK

KONG S.p.A. - Via XXV Aprile, 4 23804 Monte Marenzo (LC) - Italy
 +39 0341 630506 | info@kong.it

