Instructions for use and maintenance

(Translation of the original instructions for use and maintenance, AWA)

Rescue triangles with high seating comfort
P/N: TYRAH AR2
P/N: TYRAH MIL

Type examination certificate TEC n° 7310, EN 1498:2007 type B, by notified body 1246

EN 1498:2007, type B

EASA-relevant

For air rescue and transport of individuals by helicopter

EASA CS-27./29.865(c)(2), CM-CS-005 PCDS - simple personnel-carrying device systems (sPCDS)

New edition; for modifications in forthcoming revisions heed this symbol: B⌦xx⌫

Please make sure you have the latest version of these AWA instructions; see www.air-work.swiss, Dokumente

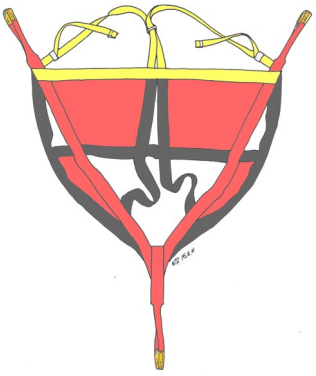


Fig. 1: TYRAH AR2 model

Fig. 2: TYRAH MIL model

View: open and closed triangles, triangles in use

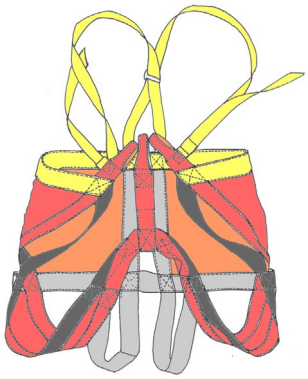


Fig. 3: Closed TYRAH AR2 rescue triangle

Fig. 4: Closed TYRAH MIL rescue triangle

Fig. 5: the TYRAH AR2 in use – highly ergonomic and comfortable

0. Introduction

The big difference: personal protective equipment against falls from a height (PPE against falls) and rescue devices (RD) versus simple personnel-carrying device systems (sPCDS)

The indication "kN" (kilonewton) on the labelling of PPE against falls and rescue devices often leads to confusion. Kilonewton is a unit of force, and the minimum standard value of 22 kN for textile lanyards is the force applied at straight lift for a duration of 3 minutes during the testing. If a lanyard carries the indication of 22 kN on its tag, the ultimate load shortly prior to breaking of the textile strap has been reached. Only a new, unused product features such a performance which decreases in the course of time due to usage, ageing, wear, etc. Unlike slinging equipment, where the payload (working load limit, WLL) always includes a safety coefficient, PPE against falls and rescue devices do not have any reserves exceeding the indicated 22 kN. Therefore, if PPE against falls/RD, apart from the normal ageing process, are brought to their limit of performance by contamination with urine or excrement or by applying knots, by impact forces, high angular forces, overloading, etc., these might fail all of a sudden.

The indication of the admissible human cargo in kg is written on both rescue triangle models, TYRAH AR2 and TYRAH MIL.

EASA requests a safety coefficient of 14 [-] for personnel-carrying device systems (PCDS) made of textiles and 7 [-] for those made of metal. By dividing the standard values of PPE against falls by the safety coefficient, users can calculate the payload allowed for all components.

All TYRAH models by A&H Equipment carry the indication of the relative admissible payloads in kg.

TYRAH AR2 and TYRAH MIL: human cargo allowed from a minimum of 20 kg up to a maximum of 150 kg.

1. Rescue triangles by A&H

The rescue triangles (BDE) TYRAH AR2 and TYRAH MIL are manufactured in the workshops of A&H Equipment.

Both models are identical with regard to dimensions, admissible payload and performance.

The main difference lies in the colour of the cloth and the straps, as the TYRAH MIL is produced in muted colours.

The outstanding feature of both models is their optimum seating comfort, even during long-term operations, and their universal size suitable for persons with a weight from 20 to 150 kg.

Testing of the maximum payload of 150 kg, as required by the standards, was executed both statically and dynamically (drop test) by the notified certification body NB 1246.

A&H P/N: TYRAH AR2

A&H P/N: TYRAH MIL

Rescue triangle EN 1498:2007, type B.

EASA CS-27./29.865, EASA CM-CS-005

- .865 (c)(2)(i) simple PCDS are allowed to carry up to 2 individuals as external load (attached to a hoist or a fixed rope), if they hold a type examination certificate and if the safety coefficients of 7 [-] for steel and 14 [-] for textile components are met;
- .865 (c)(2)(iI) simple PCDS are allowed to carry 1 individual as internal load (HHO, photographer, physician, etc.), if they hold a type examination certificate and if the safety coefficients of 7 [-] for steel and 14 [-] for textile components are met.

In the present case, the admissible payload ranges from a minimum of 20 kg up to a maximum of 150 kg.

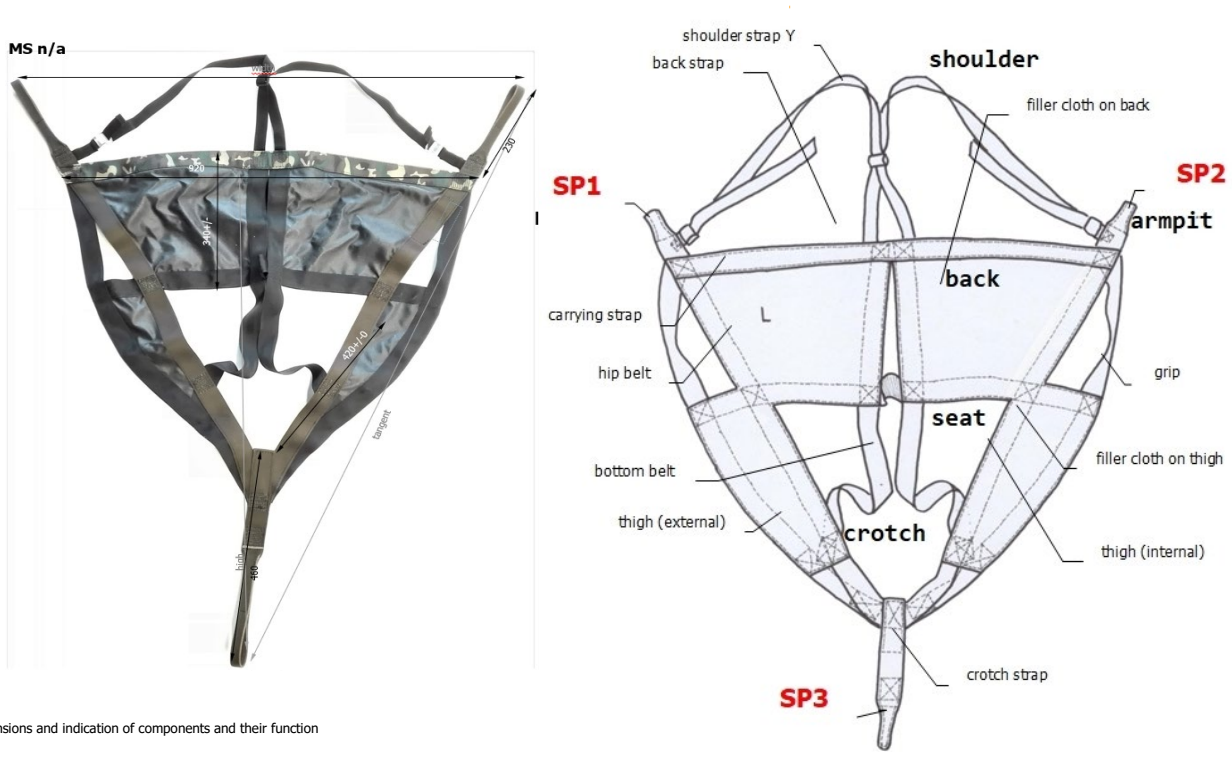


Fig. 6: Basic dimensions and indication of components and their function

Note (relevant for PPE and EASA)
Special feature Applicable to both models: the 3 slinging points are assembled in one karabiner only. No further handling or auxiliary devices are needed.
Basic material As per ICAR Recommendation 20171021-TER-REC0001, only steel connectors must be used during air rescue.

Construction

Both rescue triangle models, TYRAH AR2 and TYRAH MIL, are manufactured from proven and tested polyester (PES) and polyamide (PA) materials.

TYRAH AR2:

All load bearing straps, as well as the 3 slinging points (SP), are in red. The bearing horizontal back strap is yellow and connects slinging points 1 and 2.

The cloth around back and thighs is in red and performs only a limited load-bearing function.

The yellow shoulder straps have no load-bearing function and serve only for fixation of the rescue triangle when putting equipment on and for stabilisation of the back.

TYRAH MIL:

All load bearing straps, as well as the 3 slinging points (SP), are of a muted olive colour. The bearing horizontal back strap features a patterned camouflage print and connects slinging points 1 and 2.

The cloth around back and thighs is black and performs only a limited load-bearing function.

The black shoulder straps have no load-bearing function and serve only for fixation of the rescue triangle when putting equipment on and for stabilisation of the back.

There are no exchangeable components.

Upgrade with bottom reinforcement strap (only TYRAH AR2)

Concerns have been raised during practical use that very small or thin persons may have the sensation of "slipping" out of the triangle.

This is virtually impossible but, to enhance the feeling of safety when using the device, **the TYRAH AR rescue triangle can be upgraded w a reinforcement strap connecting the two bottom belt**s.

This reinforcement strap is sewn onto one of the two bottom belts, while it is wound around the other and fixed by means of a Velcro fastener.

The reinforcement strap is not a bearing component and thus not subject to type approval.

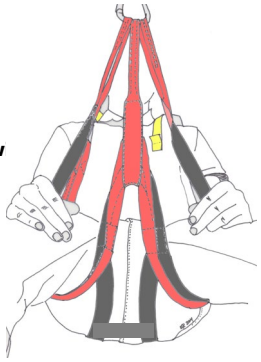


Fig. 7: reinforcement

Fig. 8: View of triangle including bottom reinforcement strap

Upgrade with bottom reinforcement strap

Fig. 9: Reinforcement strap sewn onto left bottom belt

Fig. 10: Place the reinforcement strap under the right bottom belt

Fig. 11: Close the reinforcement strap by means of the Velcro fastener

Order numbers

- TYRAH AR2 = standard design without reinforcement strap
- TYRAH AR2-S = upgraded version including reinforcement strap

2. Use

Correct use

The TYRAH AR2 and TYRAH MIL rescue triangles are rescue devices in conformity with the European standard EN 1498:2007 type B (rescue loops). To access their full functionality, the 3 loops (AP1, AP2 and AP3) of the TYRAH AR2 and TYRAH MI must be assembled in a karabiner (EN 362) and connected to another PPE (static rope/lanyard/connecting device).

"Correct use" in line with Regulation (EU) 2016/425, art. 3, means:

- Protection against falls from a height by static seating, attached to an EN 1891 kernmantel rope with low elongation by means of an EN 362 karabiner.

Due to their special construction, the unisize TYRAH AR2 and TYRAH MIL can be employed for persons with a weight ranging from 20 kg (approx. 4 years old) to 150 kg.

Small persons must be entirely surrounded by the rescue triangle, i.e. their arms must be put inside the cloth. For additional safety, the armpit straps can be secured by attaching them with two karabiners to the left and right side of the crotch strap.

In case of heavy or particularly large persons, an oppressive constraint in the breast/armpit/shoulder area could be inevitable.

"Correct use" in line with EASA requirements means:

- connection to a hoist or a fixed rope (human external cargo) = 1 person
- in suspended position, after having been connected directly to the hoist or a simple PCDS fixed rope (EN 1891) by means of an EN 354 simple PCDS (webbing) equipped with an EN 362 karabiner.
- in suspended position, after having been connected directly to a complex PCDS fixed rope (interface: rescue hook) by means of an EN 354 simple PCDS (webbing) equipped with an EN 362 karabiner.

Performance of TYRAH AR2 / TYRAH MIL

payloads from a minimum of 20 kg to a maximum of 150 kg

Note (relevant for PPE and EASA)

The TYRAH AR2 and TYRAH MIL are designed and calculated for 1 person. In the event of an emergency, e.g. if an adult accompanied by an infant of < 20 kg/4 years of age is to be rescued, the rescue crew must decide if the child can be placed as a 2nd person inside the rescue triangle.

Precondition:

- The total maximum weight of 150 kg must not be exceeded.
- During the transport process, a rescuer must be present at all times.

Special properties

- Both TYRAH AR2 and TYRAH MIL can be employed on both sides (inside and outside), as long as care is taken in placing the yellow strap horizontally around the shoulders/back.
- Their particular design features completely exclude any constriction/contusion in the crotch area which can often occur with conventional rescue triangles
- Both TYRAH AR2 and TYRAH MIL are particularly suitable for rescue operations of a longer duration (crevasse and cave rescue), since a length of stay of 20 and more minutes in the triangle can be handled without difficulty.

Both TYRAH AR2 and TYRAH MIL triangles are rescue devices approved by the German Armed Forces for CH-53 and NH90 helicopter rescue winches (hoists).

3. Correct slinging techniques and use

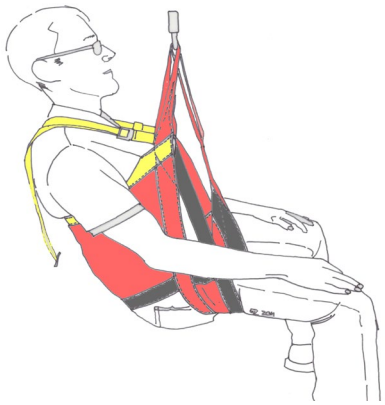


Fig. 12: Side view, adults

Fig. 13: Back view, adults

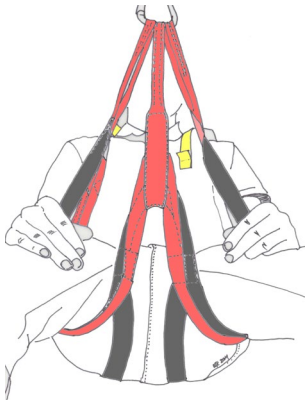


Fig. 14: Sufficient room in the crotch/bottom area

Special properties

- Both TYRAH AR2 and TYRAH MIL can be employed even under the most adverse conditions: 3 slinging points assembled to 1 karabiner, that's it!
- There is no need for complicated handling procedures such as adjusting the slinging points or adapting them to the chest circumference, etc.
- Even by night, in the rain, in water or in the undergrowth, the TYRAH AR2 and TYRAH MIL rescue triangles are easy to handle.

Fig. 15: Children, from their 4th year/ 20kg

Fig. 16: Normal sitting position

Fig. 17: 10 cm lengthening of crotch strap with a karabiner = slightly more upright position

Special properties

In theory, a slightly more upright sitting position as shown in fig. 12 is possible, but practical use has shown that the person to be rescued/transported is never alone, meaning that the counterweight of the rescuer will automatically lead to a more upright position (see fig. 5)

Assembly

Fig. 18: Pull the shoulder straps to approximately 3 cm from the stopping point.
Fig. 19: The yellow strap should protrude by approximately 2–3 cm (this way it can be grasped more easily when wearing gloves).
Fig. 20: If necessary, close the bottom reinforcement strap. (see "Upgrade with bottom reinforcement strap")
Fig. 21: Place the shoulder straps over the shoulders; place the yellow back strap around the shoulder blades, then pass it under the armpits to the chest. Retain the two slinging points SP1 and SP2 with your thumb.
Fig. 22 Pass crotch strap SP3 to the chest.
Fig. 23: Take the 3 slinging points (SP1 – SP3) in their right order into one hand.
Fig. 24: Rig the 3 slinging points (SP1 – SP3) to a karabiner, placing the crotch strap in the middle.
Fig. 25: The straps must be evenly positioned without being twisted or crossed; then tighten them all-over.

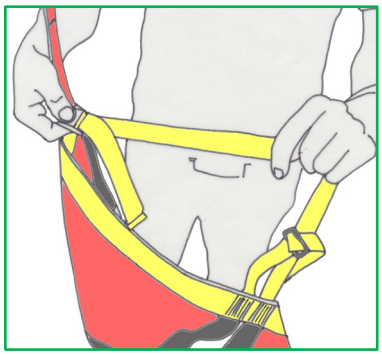


Fig. 18: Press the buckle

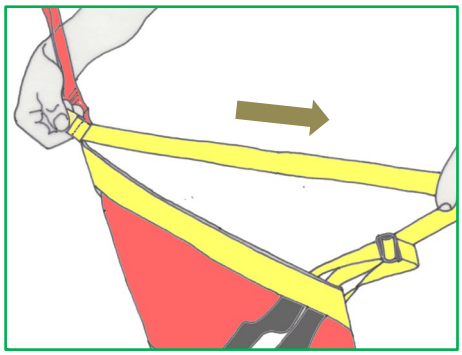


Fig. 19: Pull the strap to approx. 3 cm from the stopping point

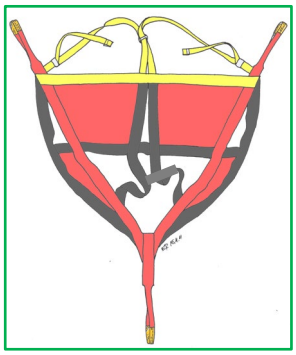


Fig. 20: Close the reinforcement strap, if present


Fig. 21: Place the strap over the shoulder


Fig. 22: Pass crotch strap SP3 to the chest

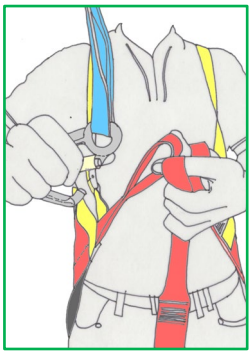


Fig. 23: Take the 2 SP in their right order

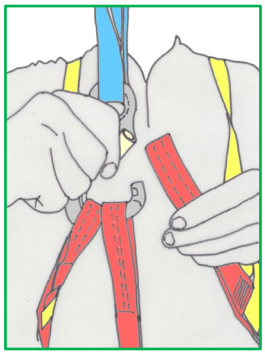


Fig. 24: Rig them to the karabiner

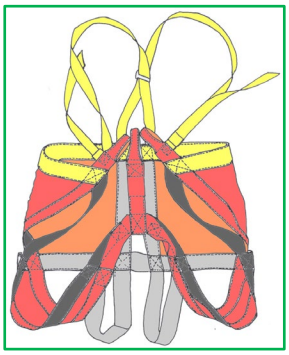


Fig. 25: All straps must be evenly positioned


Fig. 26: Securing of small infants with karabiners

In case of small persons (> 20 kg/4 years) please observe:

Fig. 26: Close the reinforcement strap before placing the yellow strap over the shoulder (see fig. 11).
Place the patient's arms inside the recue triangle
If necessary (risk assessment by rescuer/doctor), attach the two armpit straps with two karabiners to either side of the crotch strap (fig. 26).

Special properties

Both TYRAH AR2 and TYRAH MIL can be employed on both sides (inside and outside), as long as care is taken in placing the yellow strap horizontally around the shoulders/back.

4. Operative requirements

Personal safety equipment against falls from a height (PPE af) and rescue devices (RD) or rather simple personnel-carrying device systems (sPCDS) for air rescue, transport and the securing of persons must only be used by trained persons.

Their correct use in conformity with regulations during flying operations is the operator's responsibility.

Note (relevant for PPE and EASA)

Personnel assigned to using this device must have adequate instruction and training prior to its first use. During the introduction to its use and subsequent in-depth training, particular stress should be placed on gaining a good knowledge of the present instructions for its use and maintenance.

Training has to be repeated at least once a year and proof of this must be demonstrable. Please document the type, amount and the date of training in an appropriate way.

Warning (relevant for PPE and EASA)

Assignment preparation must include planning for an emergency.

All persons involved must be both physically and mentally fit for the assignment.

5. Range of applications for simple PCDS

The rescue triangles TYRAH AR2 and TYRAH MIL by A&H Equipment can be employed for their use according to regulations, i.e. for the transport of persons in a static sitting position.

Transport of persons

"Transport" means the transport of 1 person as external cargo (HEC) in a static sitting position by means of TYRAH AR2 or TYRAH MIL (for exceptions, see chapter 2), while hanging freely and being moved in a vertical direction (ascending or descending by hoist) or staying in a horizontal and oblique position during helicopter flights. The human external cargo (HEC) must be attached to

- the hook of a rescue winch (or hoist)
- the hook of a fixed rope system

Terrain

The rescue and transport of individuals can take place in any work environment and start from any point in the terrain.

- onshore
- offshore
- at any sea level

Simple PCDS as described in EASA CS-27./29.865(c)(2)

Air rescue and transport of individual

Air rescue means the transport of 1 or 2 individuals per leg, with a maximum of 2 persons per unit.

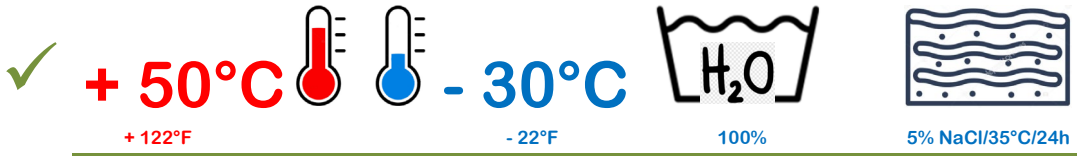
Transport and/or positioning of individuals means the transport of 1 or 2 individuals per leg, with a maximum of 2 persons per unit, attached to

- the hook of a rescue winch (or hoist))
- the hook of a fixed rope system

Notes (relevant for PPE and EASA)

Rescue devices by A&H are tested in conformity with

- EASA CM-CS-005 PCDS to ascertain the safety coefficient of 14 [-] required for textile components
- ASTM B 117-90 to ascertain the fittings' resistance to salt water (salt fog test).



Atmospheric conditions, environment

The rescue, transport and restraint of individuals can take place under any atmospheric and environmental conditions.

- onshore
- offshore
- at any sea level
- at temperatures from – 30°C to + 50°C

Notes (relevant for PPE and EASA)

- All assignments/operations must be carried out within the operative and regulatory limits.
- Every person involved can request the suspension of the assignment/operation in the occurrence of a personal limitation or if any evidently or potentially hazardous situation renders it necessary.

Warning (relevant for PPE and EASA)

- When transporting individuals as HEC, apart from the atmospheric conditions and temperatures, the so-called wind chill factor must be taken into account, since it includes the cooling effect caused by oncoming air mass, as happens during air transport or in stormy weather.
  - ➢ Also check e.g. Marshaller Syllabus, chapter 3.3.2

6. Connections (interfaces)

The connection between the slinging points (SP1 to AP3) must always and exclusively be established by using an EN 362 karabiner.

The karabiner can be directly attached to another PPE against falls or be an integral part of an EN 354 lanyard and/or an EN1891 kernmantel rope with low elongation.

Both TYRAH AR2 and TYRAH MIL can be connected to any type of PPE by any other manufacturer.

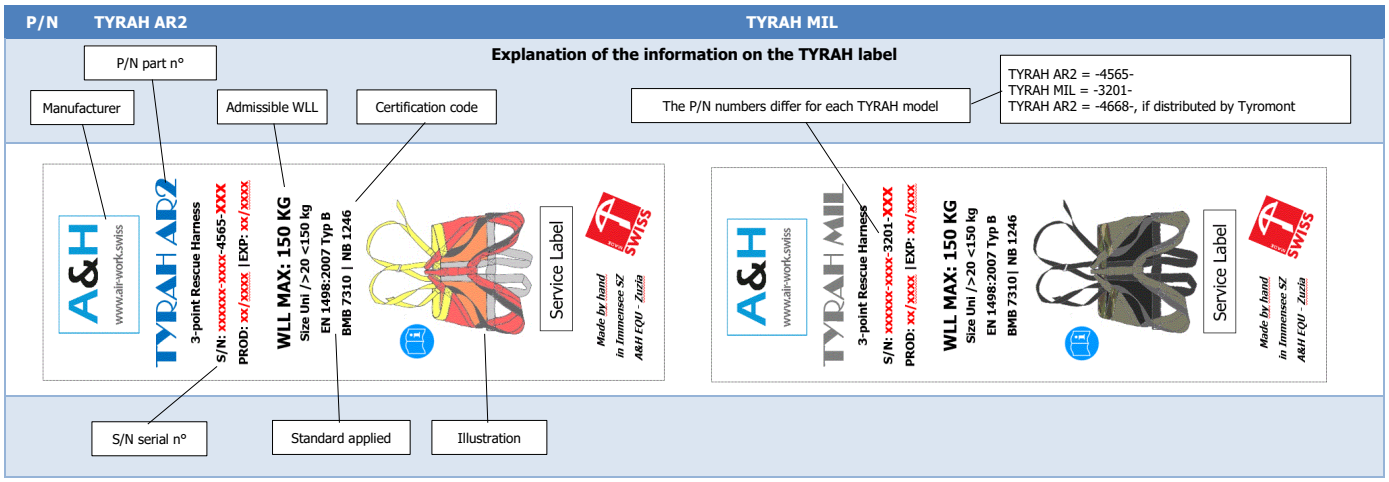
The interfaces to the connecting links (karabiners, rings, etc.) must be in such a way as to exclude any risk of damage to the TYRAH AR2 or TYRAH MIL, other PPE or their functional efficiency.

Warning (relevant for PPE and EASA)

The employment of karabiners made of aluminium or simple snap karabiners as used in mountaineering is not allowed!

7. Labelling

Labelling of the TYRAH rescue triangles bears the following information:



Warning (relevant for PPE and EASA)

Products without a label or with illegible inscriptions are not marketable and hence must be withdrawn from service.

8. Special operation modes

The term "special operation modes" implies all operations necessary to guarantee safe handling within the normal operation mode, in particular:

- Planning and construction, production, testing and function control, assembly and disassembly, transport, storage, preliminary procedures, repackaging, installation and removal, connection with other components, maintenance, repair, disposal.

All of the above mentioned special operation modes influence the device's functioning during its correct use. All persons involved in special operation modes must undergo specific training (technical experts).

Transport

Both TYRAH AR2 / TYRAH MIL rescue triangles can be transported in a rucksack, without cover or in a rope sack.

Note (relevant for PPE and EASA)

In the case of lending, demonstration, display, sale, discount trading or user training, these instructions for use and maintenance (AWA) must be enclosed/attached.

9. Preliminary procedures

Check the TYRAH AR2 or TYRAH MIL for its functional efficiency and intactness.

10. Restoration / repackaging

Check the TYRAH AR2 or TYRAH MIL for its functional efficiency and intactness.

Pull the yellow shoulder straps back to their original position up to approximately 3 cm from the stopping point.

Warning (relevant for PPE and EASA)

Rescue triangles with open/damaged seams, disrupted cloth or with notches or cuttings to the straps must be immediately withdrawn from service. The possibility of a repair con only be assessed and, as the case may be, carried out by the manufacturer A&H Equipment.

Cleaning

- in the event of normal use, every three months following the instructions given in chapter 12
- if used in saline air, once a month
- in the event of contact with soft water, once a week
- in the event of contact with salt water, every day.

11. Hazards

11.1 Possible inappropriate uses

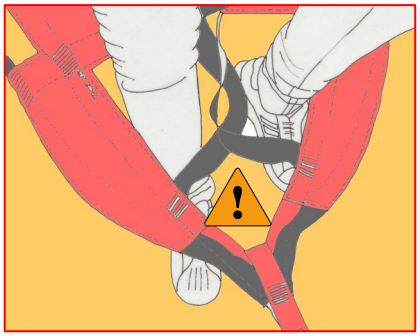
(Ways of using the rescue triangle that are inappropriate and for which it is not designed)

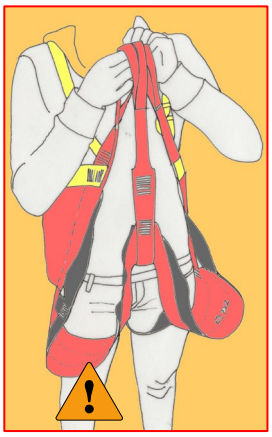
Any use that is not in conformity with the regulations (inappropriate use) of the product or its individual components can lead to evident or hidden damage to the same and, therefore, compromise its safety characteristics. In the event of inappropriate use, the producer disclaims all responsibility.

Several examples of inappropriate uses:

- Hooking up at any point that is not the authorised slinging point
- The so-called "tying" slinging technique (knots)
- Connecting SP1 to SP3 or SP2 to SP3 around the shoulder; twisting the rescue triangle by 90°
- Replacing accessories with products that are not certified
- Lengthening the sling ropes with unauthorised or inappropriate components, e.g. lashing straps
- Using the following parts as slinging points: shoulder straps, grips, hip belts, bottom belts. (By using these parts the straps might be ripped out of their seams).

DANGER





Incorrect use	Incorrect use	Incorrect use

Other possible dangers

Lengthening of 20 cm with a quickdraw = Caution: sitting position too upright, constriction in the leg and armpit area!

The yellow straps on the shoulders of heavy persons up to 150 kg must be sufficiently tied in order to support the back.

Wrong use can lead to injuries in the crotch area. Risk of tilting backwards.

In the above-mentioned cases, the carrying capacity of the working tools can be annulled and, therefore, prevent the component/components in question from functioning.

Warning (relevant for PPE and EASA)

This list is incomplete. Therefore, avoid similar situations that deviate from the appropriate use.

11.2 Be careful to avoid other possible risks

The following factors could lead to dangerous situations and, therefore, must absolutely be avoided:

- Knots in the ropes
- Tying an object to a rope
- The triangle getting caught in rocks, walls, trees, etc.
- Wrong positioning of the accessories during the working phase
- Pressing and rubbing against cutting edges, sharp corners or other materials
- Contact with power lines
- Sparks caused by induction or electrostatic discharges
- When lacking adequate instruction or in the case of self-rescue there is the risk that the person will try to get into the device by placing their feet into the seat between the bottom belts.

Warning (relevant for PPE and EASA)

This list is incomplete. Therefore, avoid similar situations that deviate from the appropriate us.

11.3 Reporting

Users are obliged to report any anomalies and occurrences to the organisation in charge.

Mandatory reporting

Occurrences related to the use of PPE against falls or rescue devices (simple PCDS) during helicopter operations are subject to the obligation to report to the organisation/s in charge (employer, manufacturer).

- Regulation (EU) 376/2014 and Implementing Regulation (EU) 2015/1018

12. Maintenance and repair

Basic principles

Based on EC directive 2009/104/EEC (CH: VUV/OPA/OPI art. 32.b, EKAS/CFST/CFSL 6512, art. 6.1; DE: BetrSichV art. 10) concerning the minimum safety and health requirements for the use of work equipment by workers at work, the working tools must be inspected at least once a year by a qualified person who is an expert in the field (DE: BetrsV § 2 para. 7, TRBS 1203). Also see Suva check list n. 67017.

End of operation procedure, restoring/repackaging

After termination of the operation, the connectors must be checked regarding their functionality and intactness, then cleaned, if necessary, and let dry.

Better than chemicals: vacuum cleaner and soft brush; for small parts: toothbrush and cloth




The following tools and/or substances must NOT be used for cleaning:

- **Heat > 30°C (hairdryer, lighter, Bunsen burner, radiator, tumble dryer, radiant heater, etc.)**

- **Chemical cleaners such as detergents, curd soap**

- **Caustic or corrosive substances such as stain removers**

- **Volatile substances/hydrocarbons such as ethyl alcohol, fuel, gun oil (only exception: WD40 for the lubrication of mechanical components, where necessary)**

- **Tools such as screw drivers, files, knives, etc.**

- **Compressed air or water pressure as occurring when using nozzles, high pressure cleaners, etc.**

The manufacturer must be notified of all damages. Also see Chapter 11.3 and "Appeal" at the end of these AWA instructions

In the event of strong pollution with body fluids, TYRAH AR2 and TYRAH MIL can be cleaned with ELTRA 40 (disinfectant detergent). The number of washing cycles is limited to 10, after which the product must be withdrawn from service.

The necessary inspection

Before and after every assignment, the structural components must be checked visually and by touch to make sure they are working perfectly and that there is no damage.

Warning (relevant for PPE and EASA)

In principle, even if there is the slightest doubt regarding safety, product components must be immediately removed from service and checked.
The producer disclaims all responsibility for damages caused by inappropriate maintenance.

Situations in which the product has to be removed from service

If not worn out or damaged in other ways, this product can be used according to the indications shown on the producer's label. However, wear or other damage could nullify the product's functionality even at its first use. Life = storage time + operating time.

Stress on structural components by overloading cannot be seen visually and cannot be repaired.

Criteria for the removal from service

Component	Rating of failure			
	K1	K2	M	N
Straps/belts (all), but only 1 damaged		X		
Shoulder straps (yellow)				X
Option: metal eyes (SP1 to SP3)	X			
Option: textile loops (SP1 to SP3)	X			
Cloth		X		
Connecting elements (karabiner, not included with rescue triangle): smallest diameter –10 %, or visible taper	X			

Rating

K1	damage to structure causing total component/accessory failure
K2	damage to structure not causing total failure, but operation must be suspended
M	possibly suspension of operation, but safety is not immediately compromised
N	no effect, safety is not compromised, operation can be terminated.

Measures to be taken		**Priority**
K1	removal of component, cannot be repaired	immediate
K2	Repair possible, but only by A&H Services	immediate
M	Repair possible, by A&H Services	daily
N	Repair possible, by A&H Services	daily

Aging times of textile materials (normal weathering)

- Polypropylene PP/PPM on average ages approximately 30% per year
- Polyamide PA ages approximately 8 - 10% per year
- Polyester PES and high module polyethylene HMPE ages approximately 3% per year

Warning (relevant for PPE and EASA)

a) In the event of interventions in contaminated areas, e.g. rescue operations dealing with machine accidents (e.g. battery acid), or on surfaces treated with nitrates, components made of metal and especially aluminium may become polluted with corrosive substances and therefore become damaged.

b) Any modification to the structure, e.g. the engraving of numbers, will cause the producer to immediately disclaim all responsibility.

c) Avoid contact with any abrasive, cutting or pointed object.

d) Avoid contact with power lines or power stations.

Major overhaul & repair

Both TYRAH AR2 and TYRAH MIL cannot be overhauled.

The possibility of repairing individual seams con only be assessed and, as the case may be, carried out by the manufacturer.

Spare parts

No spare parts.

Warning (relevant for PPE and EASA)

The use of self-made parts or wrong assembly leads to immediate warranty exclusion and the disclaim of any responsibility.

A&H strongly advises users against any manipulation of the product. In the event of wrong assembly or damage to single parts the producer immediately disclaims all responsibility.

Resistance to chemical substances

In the event of contact with acids, alkaline solutions, nitrates, etc. the TYRAH rescue triangle must be removed from service.

13. Expiry date (EXP.)

The production date of the TYRAH AR2 or TYRAH MIL is shown on the producer's label. The maximum life span amounts to 10 years inclusive of storage time.

Authorisation to prolong the expiry date, because the product has only been stored and never used, can only be obtained from the producer.

The product must be disposed of in a waste bag or a waste container.

All general rules are described in AWA part 3 (maintenance: textiles)

Recycling of the TYRAH AR2 or TYRAH MIL is not possible. Disposal in a waste bag or a waste container.

14. Guarantee

If used for the purposes for which it was designed and if both use and maintenance are carried out according to the regulations (see instructions for use and maintenance), the producer guarantees the product against material and production defects for a period of 2 years.

The guarantee is null and void: after two years of normal use; immediately in the event of inappropriate use, modifications to the structure or other parts, wrong use, etc.

The producer disclaims all responsibility for any direct or indirect consequences, accidents or any other type of damage caused by the use of its products.

Recall

The producer reserves the right to recall the product at any time. The producer will take care of the product's disposal directly or supervise its disposal in accordance with the regulations in force for the protection of the environment.

15. Regulations

Legal assumptions

This product is in conformity with the minimum requirements of the law regarding:

- European Standard EN 1498:2007 B – rescue loops
- Swiss Federal law on safety of products (PrSG, SR 930.11)
- EU Council directive n. 2009/104/EEC regarding the use of work equipment
- EASA CS-27./29.865(c)(2), CM-CS-005 simple PCDS
- ICAR Recommendation 20171021-TER-REC0001

A state-of-the-art product at the moment of the publication of these AWA instructions.

Tecnichal documentation

The present instructions for use and maintenance are an integral part of the technical documentation compiled by the producer in conformity with European Council directive n° 2016/425.

CE marking in conformity with Regulation (EU) 2016/425 is not possible, since the product is not classed as PPE but as «rescue or first-aid equipment», so the standard is not listed in the annex of the regulation. Also check (EU) 2016/425, art. 3 et seqq.

European Commission PPE Regulation Guideline, First Edition 2018:

Article 3 Definitions

For the purposes of this Regulation, the following definitions apply:

(1) 'personal protective equipment' (PPE) means:

(a) equipment designed and manufactured to be worn or held by a person for protection against one or more risks to that person's health or safety;

(b) […]

"This is what differentiates PPE from equipment used after harm has occurred, such as rescue or first-aid equipment, which also tends to be used by third parties. Equipment used by a rescuer is not classed as PPE, […]

The declaration of conformity issued by the producer is an integral part of the technical documentation and an original copy of it will be given to the costumer.

The producer depends on your detailed feedback in the case of unexpected events or dysfunctions. Technical documentations are "Living Documents" which have to be updated by the producer when necessary.

Quality assurance

Each individual component of the structure is certified and undergoes regular checks by an external body.

16. Design and distribution (manufacturer)

AirWork & Heliseilerei GmbH (A&H)
A&H Engineering and A&H Equipment

Bahnhofweg 1, CH-6405 Immensee

FON +41 41 420 49 64

Email: office@air-work.com, internet: www.air-work.swiss

ISO 9001:2015, BIG SWISO n° 11298658

EASA Part 21 G POA, CH.21.G.0022

NATO NCAGE SAC17

Conditions for product use

This product has been manufactured in compliance with EN 1498 B. These instructions (AWA) as well as the declaration of conformity are an integral part of this product. In absence of valid instructions for use and maintenance (AWA) or without adequate training prior to use of the product, the latter cannot be considered safe. Gaining a good knowledge of the present instructions for use and maintenance (AWA) must be part of user training carried out by the producer or its authorised representative (see "User training").

Users are requested to run a schedule guaranteeing the regular and documented supervision and maintenance by a qualified person.

17. Inspection authority

Type examination

Type examination by the following notified body:

SUVA, Technical Division, Certification Authority

P.O. Box 4358, CH-6002 Luzern

FON: +41 41 419 61 31

The type examination was carried out in accordance with EN 1498:2007 type B and is subject to recurrent supervision.

Type examination certificates (BMB) and Instructions for use and maintenance (AWA) can be found at www.air-work.swiss, Dokumente

Type examination certificates

See www.air-work.swiss, Dokumente

BMB 7310.d/.e, EN 1498:2007, type B

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Rights of sale

All rights of sale and all of the resulting rights and obligations: AirWork & Heliseilerei GmbH (A&H), Bahnhofweg 1, CH-6405 Immensee, or their representatives.

Please consult the producer if you have any doubts or questions.

A&H Services offers an extensive inspection and testing service for all its in-house products.

Appeal

If you have questions, if a component is damaged, seems to have changed or might be damaged, whenever you have any observations or suggestions to make, please take a photograph and send it to us via e-mail, Whatsapp, Facebook or Instagram.

In 90% of all cases we can answer immediately, thus saving you time and postal charges. Having an image will help us greatly and, together with your short description, the problem can usually be identified very quickly.