

APPENDIX 9

EUROPEAN STANDARDS AND MARKINGS FOR FALL ARREST

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INTRODUCTION

Harmonised European Standards for Personal Protective Equipment (PPE) have been developed as the preferred means of demonstrating equipment conformity with the basic health and safety requirements (BHSRs) of the EC Personal Protective Equipment Directive (89/686/EEC). Only equipment which meets these BHSRs is entitled to carry the CE mark and to be sold for use in the EC.

The alternative route to obtaining the CE mark involves the manufacturer producing a 'technical file' for the equipment which also demonstrates that it satisfies the BHSRs. In such cases, the equipment will carry the CE mark but may not display any Standard number. The manufacturer's information will contain the performance specification.

For Category III PPE (for use against "mortal danger"), the CE mark will be accompanied by a four-digit code number identifying the responsible Notified Body appointed to ensure that the manufactured product continues to satisfy the BHSRs.

Increasingly, European Standards (prefixed EN – European Norm) are being superseded or subsumed by International Standards (prefixed ISO). Where these are adopted in the UK, they will also be issued as British Standards and be prefixed BS. The British versions of standards (BS EN, BS ISO or BS EN ISO) may have minor differences from the original versions of the standard, usually in the form of a National Foreword or National Annex, to account for legislative or technical variations specific to the UK. If such a UK variation exists, this is flagged up in the attached listings below for the individual standards. BS versions may also differ slightly in the stated year of issue from the EN or ISO versions; the original EN or ISO issue dates are quoted here.

The Standards may contain design, performance and marking requirements for the different types of equipment. This document lists the Standards, and gives a brief explanation of the markings which they define.

ORGANISATION OF THE INFORMATION

PPE Standards are separated into broad categories, depending on the type of protection intended, eg head protection, foot protection. Separate documents have been produced for each category.

Within a category, where possible, Standards have been further subdivided according to the hazard (eg mechanical hazards, heat and flame) or component type (eg filters; facepieces) as appropriate. Both current and recently superseded versions are listed, as equipment marked according to either version may be encountered in the field.

Standard number and date are given, with the title (sometimes abridged).

If a UK National variation applies to this standard, the nature of this variation is described.

Markings and classifications defined in the Standard for that class of equipment are listed and briefly described.

Related Standards, eg specific test methods which will not usually appear in the markings on equipment are listed separately at the end of each document.

Pictograms and symbols for each type of equipment are included at the rear of the relevant document.

STANDARDS FOR FALL ARREST

Harnesses

EN 361:2002 - PPE against falls from height - full body harnesses	
	see EN 365 for marking requirement, plus "A" at each attachment point
EN 813:1997 - PPE against falls from height - sit harnesses	
Replaced by EN 813:2008	
	see EN 365 for marking requirement
EN 813:2008 – Personal fall protection equipment - sit harnesses	
	see EN 365 for marking requirement, plus
	- size - correct method for fastening or adjusting - maximum rated load (kg)

Component hardware

EN 341:1993- PPE against falls from height - Descender devices	
Replaced by EN 314:2011	
	see EN 365 for marking requirement, plus
	A, B, C or D - device class, according to descent energy. A is highest, D is lowest) # - maximum descent height # - maximum descent load - Short version of instruction for use
EN 341:2011- Personal fall protection equipment - Descender devices for rescue	
	see EN 365 for marking requirement, plus

On the device	<ul style="list-style-type: none"> - number and year of standard - type (1 = automatic; 2 = manual) A, B, C or D - device class, according to descent energy. (A is highest, D is lowest) # - maximum descent height # - maximum and minimum descent load - lowest operating temperature - If the line can be removed without tools: <ul style="list-style-type: none"> - identification of the appropriate line - sketch showing line route through device <p>For class D, “FOR SINGLE USE”</p>
On the line termination	<ul style="list-style-type: none"> - manufacturer of the device - year of manufacture
EN 353-1:2002 - PPE against falls from height - guided type fall arresters on a rigid anchorage line Amended 2005	
Note: This standard contains a National Foreword which sets out the fundamental UK objections to this standard because of concerns over the safety and adequacy of the information contained on guided type fall arresters including a fixed anchor line. The Foreword strongly advises the use of the National Annex in the BS version of the standard.	
	<ul style="list-style-type: none"> see EN 365 for marking requirement, plus - correct orientation in use, if removable from anchor line
EN 353-2:2002 - PPE against falls from height - guided type fall arresters on a flexible anchorage line	
	<ul style="list-style-type: none"> see EN 365 for marking requirement, plus - correct orientation in use - “Use correct rope only”
EN 354:2002 - PPE against falls from height - lanyards Replaced by EN 354:2010	
	see EN 365 for marking requirement
EN 354:2010 - Personal fall protection equipment - lanyards	
Note: Contains National Annex drawing attention to the fact that the standard does not consider the degrading effects of UV exposure on harness materials. Manufacturers and users should seek further reassurance in this area, and regularly inspect the device.	
	<ul style="list-style-type: none"> see EN 365 for marking requirement, plus: - maximum lanyard length - month and year of manufacture
EN 355:2002 - PPE against falls from height - energy absorbers	
	<ul style="list-style-type: none"> see EN 365 for marking requirement, plus - maximum allowed length of absorber + lanyard
EN 358:1999 - PPE against falls from height - work positioning systems - Belts and lanyards	
	identity of constituent fibre
EN 360:2002 - PPE against falls from height - retractable type fall arresters	
	see EN 365 for marking requirement, plus

	- intended orientation for use (vertical, horizontal, inclined)
EN 362:2004 - PPE	against falls from height - connectors
	see EN 365 for marking requirement, plus Class of connector B – basic connector M – multi-use connector T – termination connector A – anchor connector Q – screwlink connector Optionally: - Minimum strength (kN) in major axis
EN 365:2004 - PPE	against falls from height - general requirements for instructions for use and for marking Corrected 2007
	- identification of the manufacturer / supplier # - batch or serial number of the component - model or type number - relevant Standard number and year - pictogram for “see instructions”
EN 795:1997 - PPE	against falls from height - anchor devices: requirements and testing
Replaced by EN 795:2012	
	Note: The presumption of conformity has been withdrawn for class A, C and D anchor devices within EN 795:1997. These classes are not considered to be PPE and therefore do not fall under the scope of the PPE Directive (implemented in UK by the PPE Regulations 2002). This means some new anchors may not be CE marked under the PPE Directive. They may however be CE marked under the Construction Products Directive. In any case, an anchor device should meet the requirements of EN 795 and EN 365 (or equally effective standard). see EN 365 for marking requirement, plus A1 - structural anchor for vertical, horizontal or inclined surfaces A2 - structural anchor for inclined roofs B - transportable temporary anchors C - anchor device incorporating horizontal flexible line D - anchor device incorporating horizontal rigid rail E - deadweight anchor for use on horizontal surfaces For class C and class E anchor devices, the following information should be marked on or near the anchor device: a) the maximum number of attached workers; b) the need for energy absorbers; c) the ground clearance requirements
EN 795:2012 – Personal fall protection equipment – Anchor devices	
	Note 1: EN 795:2012 was published in 2012, but almost immediately after was the subject of a Formal Objection. This means this new standard does not yet provide a

	<p>presumption of conformity. Once the Commission has reviewed this Objection, a further update will be provided.</p> <p>Note 2: National foreword directs readers to CEN/TS 16415:2012 for multi-user anchor devices.</p>
	<p>See EN 365 for marking requirements, plus:</p> <ul style="list-style-type: none"> - indication that the anchor is for one user only
EN 1891:1998 - PPE against falls from height - low stretch kernmantle ropes	
	<p>see EN 365 for marking requirement, plus</p> <p>A or B - type of rope. A is heavier duty than B</p> <p># - diameter in mm</p> <ul style="list-style-type: none"> - indication of composition - name or colour code: green - polyamide blue - polyester brown - polypropylene orange - polyethylene violet - any other material
EN 12841:2006 Personal fall protection equipment – Rope access systems- Rope adjustment devices	
	<p>As EN 365 for marking requirement plus:</p> <ul style="list-style-type: none"> - “see information” pictogram - year of manufacture - Type of device (may be more than one of these, e.g. “A/C”): <ul style="list-style-type: none"> A – accompanies user allowing movement but locks under load B – used with Type A, moves freely in one direction but locks In other direction C – used with Type A, allows controlled descent and hands-free stop - anchor line diameter, prefixed “Ø” - maximum rated load - type of line to be used <ul style="list-style-type: none"> ⊙ EN 1891 Type A ● other types or constructions - correct orientation of device

Rescue equipment

Note: This equipment is NOT classed as PPE against falls from height, but is used in conjunction with a number of the items listed above. It is included here for completeness.

EN 1496:1996 - Rescue equipment - rescue lifting devices	
Superseded by EN 1496:2006	
	<ul style="list-style-type: none"> - type identification - class: <ul style="list-style-type: none"> A - for raising only B - for raising or lowering - rated load - last two digits of year of manufacture

	<ul style="list-style-type: none"> - name or mark of manufacturer / supplier - batch or serial number - For rescue purposes only
EN 1496:2006 - Personal fall protection equipment - rescue lifting devices	
	<p>As EN 365 for marking requirement plus:</p> <ul style="list-style-type: none"> - class: <ul style="list-style-type: none"> A - for raising only B - for raising, and lowering 2m max - rated load - maximum lifting distance - if line not integrated, type, model, diameter range of line to be used with the device
EN 1497:1996 - Rescue harnesses	
Superseded by EN 1497:2007	
	<ul style="list-style-type: none"> - type identification - last two digits of year of manufacture - name or mark of manufacturer / supplier - batch or serial number - For rescue purposes only
EN 1497:2007 - Personal fall protection equipment - Rescue harnesses	
	<p>As for EN 365 marking requirement plus:</p> <ul style="list-style-type: none"> - maximum rated load
EN 1498:1996 - Rescue loops	
Superseded by EN 1498:2006	
	<ul style="list-style-type: none"> - type identification - class: <ul style="list-style-type: none"> A - loop hold person upright around back and under arms B - loop holds person in sitting position C - strap holds person head down by ankles - last two digits of year of manufacture - name or mark of manufacturer / supplier - batch or serial number - For rescue purposes only
EN 1498:2006 - Personal fall protection equipment - Rescue loops	
	<p>As for EN 365 marking requirement plus:</p> <ul style="list-style-type: none"> - class of rescue loop <ul style="list-style-type: none"> A – loops round back and under arms B – holds rescuee in sitting position C – loops round ankles - maximum rated load
BS 8405:2003 - Descender devices – Single-hand operated descender devices for self or assisted rescue Amended 2009	
	<ul style="list-style-type: none"> - standard number and date - manufacturer identification, and batch / serial number - pictogram for “see instructions” - model / class identification - correct orientation

	<ul style="list-style-type: none"> - max and min rated load (kg) - rope or webbing specification intended for use - max length of descent line to be used - last two digits of year of manufacture - batch or serial number
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OTHER STANDARDS RELEVANT TO FALL ARREST

Occupational equipment is unlikely to be marked with these Standard numbers, but they may contain useful information on equipment performance or test methods.

BS EN 363:2008	Personal fall protection – Personal fall protection systems
	<i>Note: National Foreword in this standard highlights a number of BSI objections to the content of the document in relation to the requirements of the Work at Height Regulations 2005, and directs UK users to BS 8437 instead.</i>
EN 364:1993	PPE against falls from height - test methods
EN 1868:1997	PPE against falls from height - list of equivalent terms
BS 7883:2005	Code of practice for the design, selection, use and maintenance of anchor devices conforming to BS EN 795 Amended 2007
BS 7985:2009	Code of practice for the use of rope access methods for industrial purposes
BS 8437:2005	Code of practice for selection, use and maintenance of personal fall protection systems and equipment for use in the workplace Amended 2012
EN 12277:2007	Mountaineering equipment – Harnesses – Safety requirements and test methods