

An introduction to BS 7883:2019



**Guidance for the inspection of fall
protection anchor devices and systems**

This overview details the changes and latest guidance for the Recertification of anchor devices and systems, from the perspective of the Duty Holder (Owner or Organisation) and Recertification Technician (The Inspector).

For many reasons falls from height remain statistically amongst the largest cause of occupational fatalities within the workplace. An important way to reduce these fatalities is to ensure, beyond doubt, the anchors and systems used to protect against falls from height are tested properly, in perfect working condition and recorded as such.

In a continuous drive to improve the Occupational Safety & Health (OSH) within our industry, British Standards (PH5) Committee was formed, drawing on the knowledge and wisdom of many Fall Protection Industry experts, including professionals from within our Company.

The latest revision of BS 7883, released in 2019, constitutes a revised, and comprehensive best practice document for those designing, installing, maintaining, inspecting and certifying anchor devices and systems.

Injury or death resulting from falls is, sadly, still impacting too many UK workers. According to the Health and Safety Executive (HSE) figures for fatal injuries in Great Britain for 2018-19:

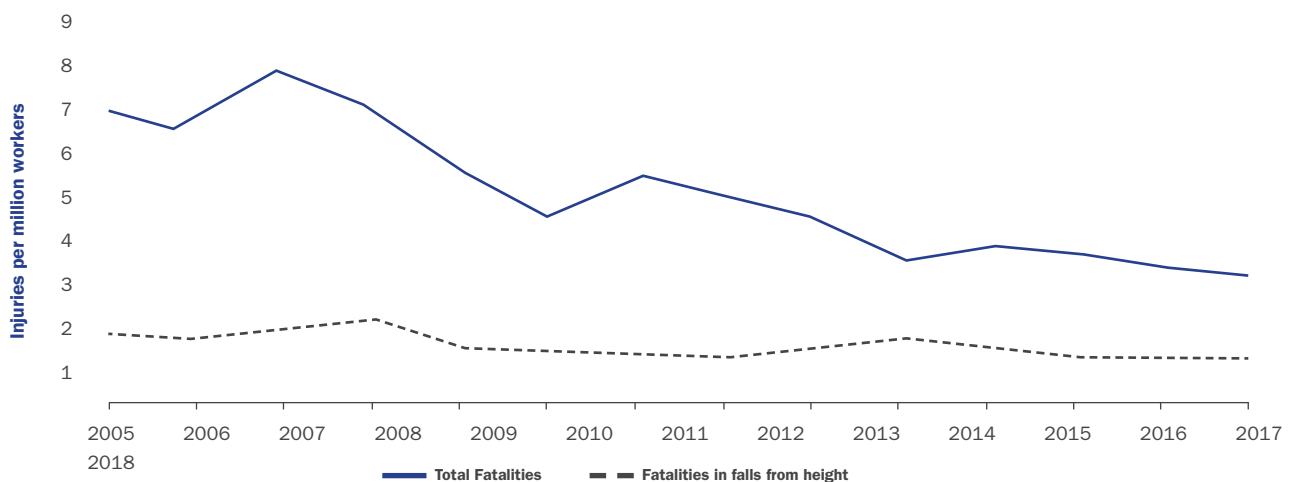
OVER THE LAST FIVE YEARS
FALLS
FROM HEIGHT
have accounted for **26% of all fatal accident injuries** (an average of 37 fatal injuries per year).

OVER **60% OF DEATHS**
when working at height involve falls from **ladders, scaffolds, working platforms and roof edges** and through fragile roofs.

40 WORKERS 
suffered fatal injuries as a result of falling from height – **that's 27% of all UK fatalities in the workplace**, and five more deaths than in 2017-18.

BS 7883 was revised in 2005 with the aim of further preventing falls from height. Although there was a noticeable improvement over the past decade, there has been a reduction in progress in more recent times; highlighting the need for another revision of BS 7883:2019 to further help reduce fatalities.

UK Fatal Occupational injuries per million workers 2005-2018



New Product Categories

Introduced in 1997 and later revised in 2005, BS 7883 was primarily a Standard for anchor devices incorporating a single structural anchor such as Class A Eyebolts and best practice ‘guidance’ in relation to inspection.

The latest revision, BS 7883:2019 recognises the advances within fall protection technology and now includes five ‘types’ of Anchor Systems.

The categories are:

TYPE A:

Permanently fixed Anchor System, incorporating one or more structural anchors, such as an Eyebolt.

TYPE B:

Removable and transportable anchor that does not incorporate a structural anchor and hence is not permanently fixed to a structure.

TYPE C:

Structurally anchored Anchor System incorporating a flexible anchor line such as wire rope, fibre rope or webbing.

TYPE D:

Structurally anchored Anchor System incorporating a rigid rail or tube.

TYPE E:

Anchor Device relying solely on mass and friction between itself and a load-bearing surface.

Those inspecting such systems must be aware of what components should be utilised, in place, and what are potentially missing, installed incorrectly or assembled with incompatible components.

Hidden Elements

Hidden elements within an Anchor System clearly cannot be comprehensively examined during inspection. The latest guidance recommends that a record of all hidden elements and the materials obscuring them is detailed within the System Technical File, including evidential and sequential photographs taken during installation. Many original installations may not have this critical verification documentation, and a full system review and supplementary engineering inspection revealing the hidden elements may be required.

Inspections and Results

BS 7883:2019 now provides four categories of inspection results:

PASS: Satisfies all relevant recommendations, allowing the fall protection system and corresponding personal protective equipment to remain in service.

INSPECTION STATUS - PASS

Proof load testing a cable termination

Testing of a Horizontal Lifeline Swaged Tensioner assembly in line with manufacturers and BS 7883 guidance.



CONDITIONAL PASS: Satisfies the recommendations of a previous standard or code of practice and does not represent an immediate safety concern, but does not meet all recommendations in accordance with BS 7883:2019, this includes the absence or missing information contained within a System Technical File.

The fall protection system and corresponding personal protective equipment should be labelled as remaining in service with a detailed inspection report produced and issued to the Duty Holder with remedial recommendations and timescale for completion.

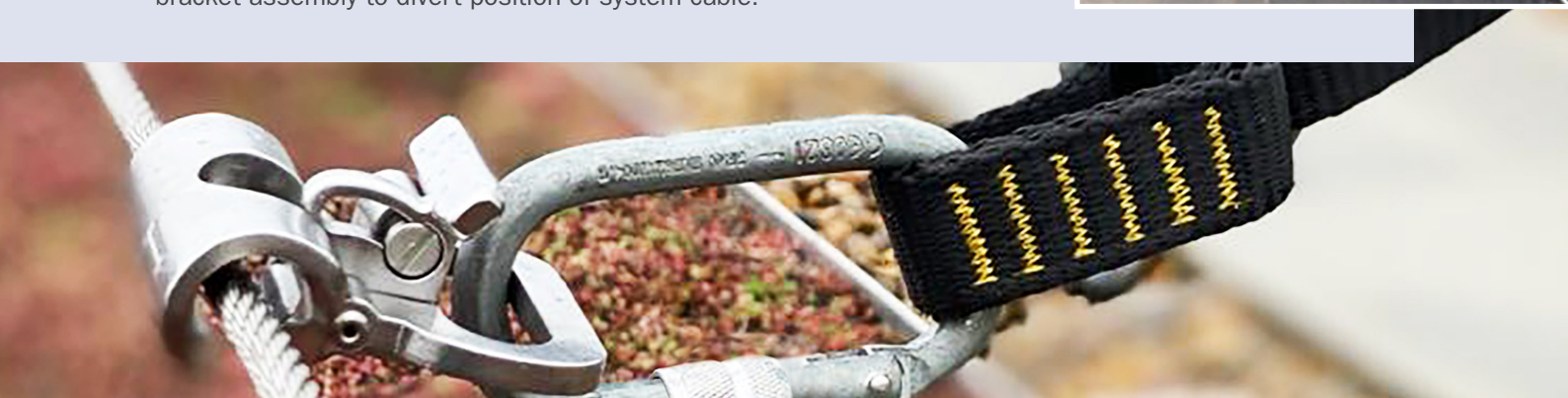
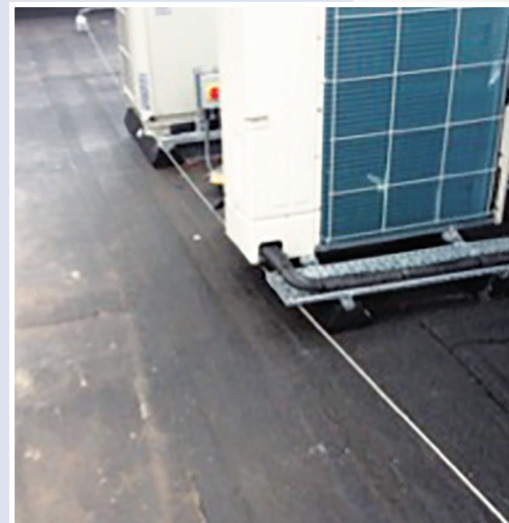
INSPECTION STATUS - CONDITIONAL PASS

Restricted Horizontal Lifeline functionality

To remedy and achieve a pass:

Option 1 - AC units need to be re-positioned to permit the operative to use the HLL correctly

Option 2 - Review or create the System Technical File and where approved, retrospectively install an additional intermediate post/ bracket assembly to divert position of system cable.



Inspections and Results Continued

CONDITIONAL FAIL: Satisfies the recommendations of a previous standard or code of practice but represents an immediate safety concern which is capable of improvement, subsequently the fall protection system and/or the corresponding personal protective equipment does not satisfy the recommendations in accordance with BS7883:2019. The fall protection system and/or Personal Fall Protection Equipment should be labelled as taken out of service with a detailed inspection report produced and issued to the Duty Holder with remedial recommendations and timescale before the fall protection system is re-inspected and returned to service.

INSPECTION STATUS - CONDITIONAL FAIL

Beam clamp onto I-beam

To remedy and achieve a pass:

Review or create the System Technical File & Examination Scheme, complete with load calculations to verify structures load-bearing capacity. Replace the beam clamp with a manufacturer approved end-termination assembly, replace tensioner component, and perform a load test in alignment with the manufacturers recommendations.



FAIL: Does not satisfy the recommendations of a previous standard or code of practice and represents an immediate safety concern which is beyond improvement or repair, subsequently the fall protection system and/or corresponding personal protective equipment does not satisfy the recommendations in accordance with BS 7883:2019.

The fall protection system and/or corresponding personal protective equipment should be labelled as taken out of service, labelled "DO NOT USE", and where possible decommissioned with a subsequent inspection report produced and issued to the Duty Holder.

INSPECTION STATUS - FAIL

Extremity bracket into poor quality brickwork:

The chimney is of questionable strength and load-bearing capacity, indicated by different types of bricks and numerous attempts at re-pointing the mortar in between the bricks.

To remedy and achieve a pass

It would be necessary to remove the existing lifeline system and completely review the anchor system. Pending a complete design review, rebuilding the chimney for direct re-attachment of a new anchor system may be an option, but full structural calculations and documented approval would still be required.



System Technical File

BS 7883:2019 has introduced the definition “System Technical File”.

This evidence-based document is produced by the System Designer for forward transmission to the Duty Holder and should be made available to the Recertification Technician at any visit.

The System Technical File shall include the system design and layout, design calculations and structural attachment detail, allowing compatibility, safety, and operational suitability to be assessed and verified.

Without the System Technical File, or parts of it, the Recertification Technician may not be able to fully perform their duties and recertify the anchor or system.

As a minimum the System Technical File will contain:

		Inspection status if not available	
A	Preliminary information concerning the project and proposed installation.	Conditional Pass	
B	Companies involved, setting out the relationship between Duty Holders, system designers, manufacturers, and installers.	Conditional Pass	
C	Design considerations, including full evaluation and calculation of connection structure/fall protection solution.		Conditional Fail
D	Record of decisions made based on the hierarchy of control measures.	Conditional Pass	
E	Complete system design specification.		Conditional Fail
F	Documentation for traceability of products and items, including:		Conditional Fail
	1. Declarations of conformity		Conditional Fail
	2. Delivery notes	Conditional Pass	
	3. Serial numbers and batch numbers		Conditional Fail
	4. Date of manufacture		Conditional Fail
G	“as built” drawings showing the assembly of the complete installation.	Conditional Pass	
H	Installation document(s) and photographs of installation signed by the installer, inspector and Duty Holder.	Conditional Pass	
I	Details of any specification variations, e.g. where the fixing detail has been changed from that normally specified		Conditional Fail
J	Where elements of the anchor system are hidden, e.g. by roof coverings, cladding, details of all hidden elements, and the method of fixing, documentation confirming this, including photographs.		Conditional Fail
K	Details and reports of any inspection(s) and tests completed.	Conditional Pass	

Should any of the above information be absent at the time of an inspection then we can assist Duty Holders with completing a full system review and where applicable, undertaking supplementary inspections to establish how the product was structurally anchored into the base material.

Examination Scheme

As the global leader within our industry we have embraced the new inspection standards and results criteria.

We inspect all anchors and systems and their technical file. Any deficiencies are categorised in line with the recertification results, with full explanation, photographic evidence and any necessary solutions and time frame recommendations.

We have invested in the latest field-based technology which is fully aligned with the new standards requirements and the appropriate examination scheme. Our system provides the Duty Holder and Recertification Technician with clarity and consistency of approach and interpretation of the specific product standards and their complexities.

Duty Holders receive a full inspection visit report, including a summary of their building's fall protection equipment and supplementary requirements. Reports are submitted in an electronic format and for multiple site inspections these can be hosted on our online portal, allowing access to all building/site reports in one safe place.

“ We have invested in the latest field-based technology which is fully aligned with the new standards requirements ”



Conclusion

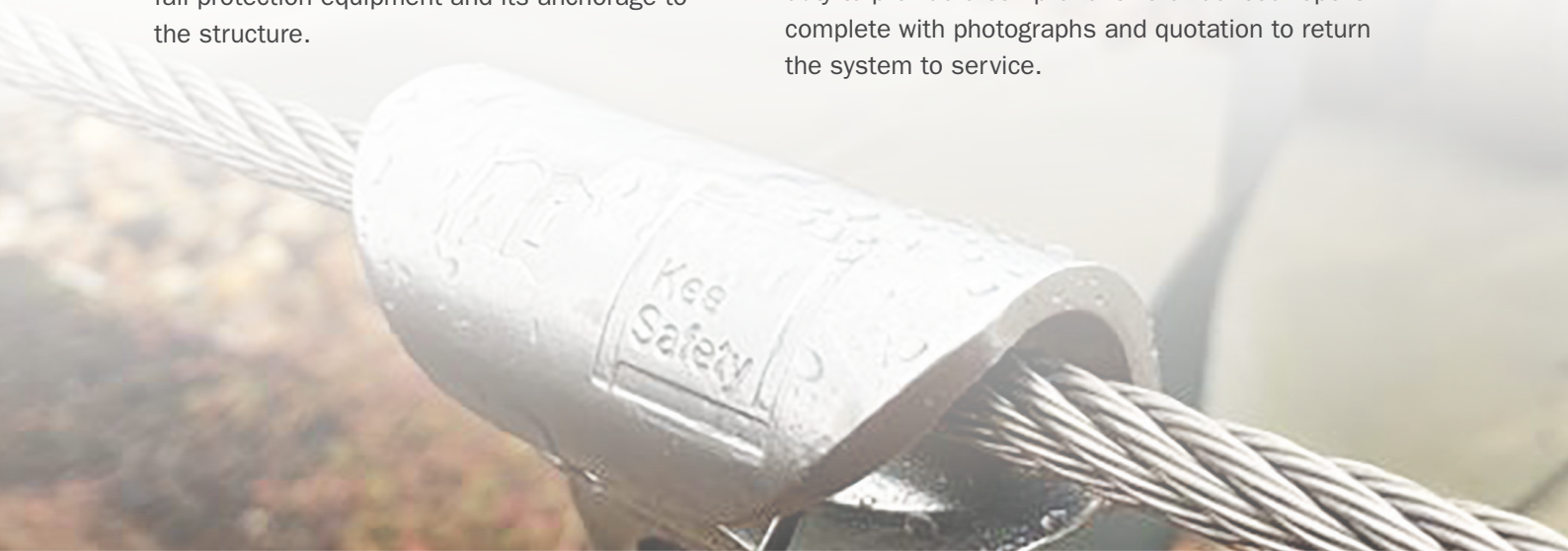
The introduction of the revised BS 7883:2019 Standard brings clarity and consistency for the Duty Holder and Recertification Technician, ensuring these safety critical fall protection systems are designed, installed, inspected, and maintained to the highest standard.

A certificate is no longer sufficient to prove that all is compliant and safe. Specific details of all inspection criteria must be supplied to the Duty Holder, for them to justify to themselves that all is safe.

It is no longer reasonable to assume “it must have been installed correctly in the first place” and there must be evidence of how any anchor system is fixed to the buildings structure. If this information is not available, BS 7883 requires a supplementary investigation. This will give the Duty Holder evidence of the suitability of the fall protection equipment and its anchorage to the structure.

This enhanced standard is more onerous than previous version's, but it ensures all crucial elements of an anchor-based installation are properly recorded and remain available to facilitate the safe operation and maintenance of the fall protection system.

Our detailed recertification inspection of anchor devices is aligned with the requirements of BS 7883:2019. This ensures the safety equipment has been subject to a rigorous inspection process and is safe for continual use. Where it is established that the equipment requires remedial repair/replacement, we take it as our duty to provide a comprehensive evidenced report complete with photographs and quotation to return the system to service.



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