

FIXED LADDERS FITTED WITH A SAFETY CAGE: SAFE OR UNSAFE?

By Rob Messenger

With falls from height still one of the leading

causes of fatal accidents at work, the industry welcomes two new guidance documents on working safely on portable ladders, released by the Ladder Association and Health & Safety Executive (HSE). Rob Messenger, Work and Rescue at Height Instructor, at Arco Professional Safety Services, looks at the issues of fixed, safety cage ladders and how to mitigate the risks associated with using this type of equipment.

With falls from height the leading cause of fatalities at work – the updated guidance from the HSE and the Ladder Association will be welcomed by safety professionals, site managers, company directors and ladder users alike.

Fixed ladders are common across a multitude of industries within the United Kingdom, as an access method giving many thousands safe access to plant and equipment which is located at height. But is it safe for you, your colleagues, your contractors, or your employees to use caged ladders without any



additional measures? Within many industries the use of these ladders without additional fall protection measures has largely been banned. This has been done out of ‘best practice’ rather than due to a legal requirement. However, there are many industries where their use is both frequent and without any fall protection measures in place.

The HSE released a research paper in 2004 titled *“Preliminary Investigation into the fall-arresting effectiveness of ladder safety hoops”* ([Click Here](#)) where they state that, “Various legislative and guidance documents specify ladder safety hoops

on fixed access ladders, (alternatively rendered as caged ladders), and give the impression that the purpose of the hoops is to protect workers from falling to the ground or other platform. Previous research has indicated that there is almost a total lack of knowledge in regard to ladder safety hoops.” A quick search with ladder manufacturers brings up comments from many claiming these ladders, “offer a completely enclosed, safe method of access for almost any situation.”

What does the Law say?

The regulations allow the climbing of ladders with safety cages without any fall protective equipment. However, the HSE released a safety bulletin in 2012 titled *“Hooped ladders and the use of personal fall-arrest systems”* and within this document they say the following:

- “hooped ladders (with or without a personal fall arrest system) may not be effective in safely arresting a fall without injury. As a result, duty holders are advised to review their risk assessments where these ladders are used”
- “HSE does not recommend the blanket removal of hoops from ladders (which would probably increase overall risk), or to prohibit the use of personal fall arrest systems within hooped ladders”
- “hoops alone do not provide positive fall arrest capability; they can provide other safety benefits such as getting on and off the ladder”

How far is too far?

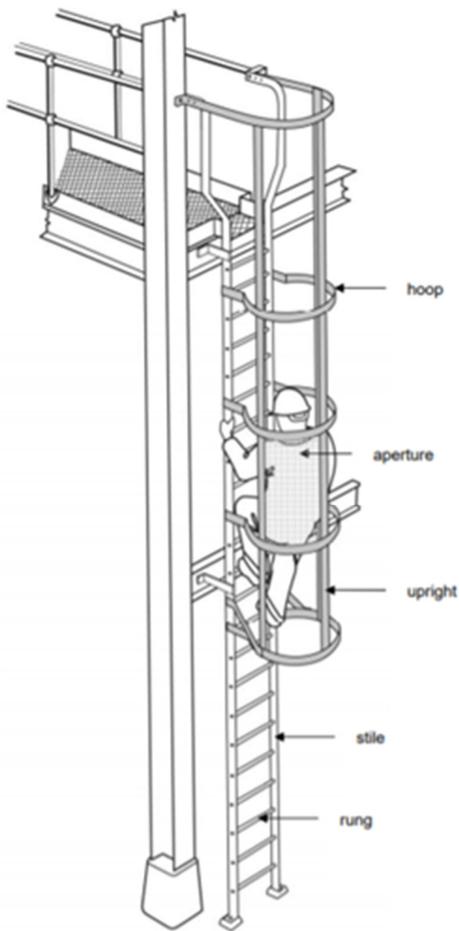
The British Standard BS 5395 Part 3 (1985) recommended that “[...] the height of a ladder should not exceed 6m without an intermediate landing.” This is in contrast with the most recent BS 4211:2005+A1:2008 which specifies 9m. The standard also recommends that ladders over 2m should have a safety cage.

So, what should we do?

The simple answer, as is stated in the HSE 2012 safety bulletin, is that everyone should be attached to some form of fall protection system as research shows that the cages alone will not help a worker during a fall and may even cause more significant injury. However, this is not quite correct as the HSE research found that the effectiveness of **some** fall arrest systems was ineffective when combined with a caged ladder. We know that falls from height, including low levels, can easily result in fatal injuries and therefore we should try to protect workers who are having to access these ladders but simply putting in a fall arrest system or making workers wear lanyards is not always the best solution.

A fall arrest system should have ideally been tested to show its compatibility with a caged ladder or failing that, consideration should be made to remove the cages from ladders once a fall arrest system has been installed.

It is a tricky position for businesses as you will be considering the cost of training, installation of the system, periodic testing of PPE, annual recertification of the safety system, rescue planning for the now suspended worker etc. But all of this will be cheaper than a HSE fine and considerably lighter than the burden of being responsible for an injured worker.



<https://www.hse.gov.uk/research/rrpdf/rr657.pdf>

A factor to perhaps consider is the physical fitness and the health of the person climbing the ladder. How many employers have considered the following when assessing aptitude for work at height; Are they comfortable climbing? Used to elevating their heart rate with strenuous activity? Able to hold their body weight and grip a ladder? Do they suffer from a medical condition that could cause a fall such as vertigo, diabetes, epilepsy, low blood pressure etc.?

A construction company recently reported that a 50-year-old male was climbing a caged ladder up a 50m tower crane to reach the control cabin. Whilst climbing the worker felt dizzy and suffered a heart attack, he fell and landed onto one of the landing platforms. The report concluded that having a landing platform every 12 m seemed to have been too much for the worker's physical abilities, he was going back to work immediately after lunch on a very hot afternoon.

Was he safe? A common response to this question is "he does this all the time, day in day out", this accident shows that experience doesn't matter but checking a

person's fitness and health should always be part of the risk assessment.

Rescue and Emergency Planning

The Work at Height Regulations state, "Regulation 4 (1) Every employer shall ensure that work at height is – (a) properly planned[...]" this includes planning for emergencies and rescue.

Other factors to consider include:

- Competence of those trained to rescue
- Suitability of rescue equipment, e.g. the length of the equipment (this is quite often not taken in to consideration)
- Rescuers ability and knowledge to provide first aid post rescue
- Communication with emergency services prior to commencing rescue. If in a remote area post codes are not always useful and 'What 3 words' is not always reliable as it relies on good and accurate signal, so having a location identified in the method statement prior to the rescue is essential

- Number of persons trained in rescue. (What if the one person rescue trained is the person who is unwell, injured or has fallen?)

It is worth noting that not all firefighters or stations are trained for nor are they equipped for a work at height rescue. This is the same for the ambulance crew who also have a 27kg bag to get to the patient.

Summary recommendations

Cages/hoops on ladders are a common method of access to everyday workplace platforms, but have been considerably relied upon to arrest and make safe the fall of a worker to which they have been shown to offer no assistance and in fact could cause more injury. The HSE do not require cages/hoops to be removed from ladders nor do they demand a fall arrest system to be used.

The HSE simply recommends that you provide some form of compatible protection for workers on fixed ladders and this can be achieved by working with a reputable fall protection company.

Always make sure the fall arrest system that you use is compatible for a caged/hooped ladder, is regularly inspected, and your staff are fit, trained and competent to access the ladder.

Finally, ensure that you have planned for an emergency/rescue. Rescue equipment is readily available and ensure staff are trained in its use.

About Arco: What they do and how they're different

Arco is the UK's leading safety products and services company. Its core purpose is to keep people safe at work. It distributes a world-class range of over 170,000 quality assured, branded and own brand products, including personal protective equipment, workwear, safety footwear, gloves, workplace safety and hygiene products. It is unique.

Arco Professional Safety Services provide consultancy, training, services and equipment to manage the most complex and high-risk, high hazard scenarios. Specialising in working at height, confined space and respiratory management, they deliver solutions for those working in situations with the highest risk of serious injury or irreversible damage to health.

Headquartered in Hull, Arco reaches its customers through its extensive product catalogue, website and national network of retail stores. The company has sales of over £320m and employs more than 1600 people nationwide. Its 400,000 sqft National Distribution Centre distributes products to 25k customers in the UK and Ireland, dispatching 150 pallets and 8000 parcels a day. Arco makes it easy for customers to procure and issue PPE with services such as digital procurement, vending, a mobile issue unit, wearer packing and branded workwear from their in-house Clothing Centre based in Preston.

As the market leader, Arco is committed to helping shape the UK's safety agenda in order to ensure workers go home safe every night. Through an extensive public affairs programme, Arco experts have contributed to some of the key debates on health and safety regulation, product quality and standards, PPE procurement and emergency planning.

Arco is committed to providing safety equipment that is genuine and compliant with relevant standards and regulations, Arco tests both its own product range as well as carrying out surveillance on other products in the market to ensure compliance. With a five-step product assurance process, Arco remains the only safety distributor with an independently accredited testing laboratory, this assisted by a team of specialists in their Xiamen, China office who support with sourcing, quality control and factory inspections. Additionally, it is a member of the BSIF Registered Safety Suppliers Scheme, and Arco experts sit on numerous Standards Boards.

Arco was the first member within the H&S industry to join the Ethical Trading Initiative (ETI) incorporating its internationally recognised code of labour practice into its own ethical policy and in 2010 became a member of Sedex, the Supplier Ethical Data Exchange. To ensure ethical standards are met throughout its supply chain, Arco carries out regular independent supplier auditing. Working with the ETI and other regulatory bodies, the company plays a leading role in helping to educate and eliminate modern day slavery across the globe. Principles of sustainable development have long been embedded in the way Arco does business. Arco's Sustainability Action team has committed to ensuring the business behaves responsibly in all areas, investing significant time and resource to identify ways to reduce plastics, packaging and recycling.

Founded in 1884 and with a heritage spanning five generations, Arco demonstrates traditional family values and is dedicated to its Corporate Social Responsibility policy. Arco is committed to help keep communities safe, inspire young people to achieve their full potential and to enhance local life, making the communities they serve better places in which to live, work and invest. It does this through charity and community support, donating 1% of pre-tax profits each year. Arco also gives colleagues two days' paid leave each year to volunteer in the community and the opportunity to partner with and sponsor community groups and charities, forming lasting relationships that support them in the vital services that they offer.

For more information, visit www.arco.co.uk.

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