



The right approach to ensuring safe lifting equipment - 30th September 2008

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With a history that stretches back to the construction of the Pyramids, lifting equipment is still an integral part of the modern manufacturing environment.

Products that range from the simplest load slings to highly sophisticated automated overhead travelling cranes play an essential role in a diverse array of production, maintenance and distribution processes. And, reflecting the risks inherent in lifting operations, employers have considerable responsibilities regarding the provision of equipment that is safe and fit for purpose.

In the UK, many of these are spelt out in the Lifting Operations and Lifting Equipment Regulations (LOLER). Introduced ten years ago, LOLER operates alongside other relevant legislation, such as the Health and Safety at Work Act and the Provision and Use of Work Equipment Regulations (PUWER), to provide a modern, risk-based regulatory framework. One of its key elements is the requirement to subject all lifting equipment to periodic thorough examination.

Depending on age and installation requirements, a thorough examination may be required before equipment is first put into service. When equipment is in-service, LOLER provides two options in terms of on-going thorough examinations.

The first is for them to take place at maximum fixed intervals: six months for equipment that is used for lifting people and for lifting accessories; twelve months for other lifting equipment. Alternatively, an examination scheme can be drawn up, where intervals are based on the frequency and nature of use, the operating environment, and the rate at which the condition of a particular piece of equipment will deteriorate. In terms of what is actually involved, the [Code of Practice for the Safe Use of Lifting Equipment](#) (COPSULE) defines it as a 'visual examination, carried out by a competent person carefully and critically

and, where appropriate, supplemented by other means such as measurement and testing, in order to check whether the equipment is safe to use.'

Under previous legislation, thorough examination did not encompass any testing of the equipment. With LOLER, it has broadened to include procedures such as proof-load testing, non-destructive testing, light load testing and operational testing. LOLER also requires that a full written report is produced and, for any equipment found to be of immediate or imminent danger, a copy of that report is sent to the enforcing authority, usually the HSE.

Whilst LOLER has rightly focused attention on the need for employers to subject lifting equipment to these regular 'MOTs', there is undoubtedly still a degree of misunderstanding and confusion as to the precise role played by thorough examinations. In particular, one of the most common mistakes is for employers to rely too heavily on them to ensure that lifting equipment remains safe to use in the intervening periods.

Even in the most safety-conscious factories, lifting equipment is inevitably subject to wear and tear. Indeed, this type of equipment tends to lead a tough life. In some environments, corrosion is likely to affect the component parts of items such as hoists and chain blocks. Exposure to heat, strong sunlight or chemicals can also have a detrimental affect. Even if used well within their safe working load, items that come into contact with the load itself, such as slings and lifting attachments, are vulnerable to damage each and every time they are used. For the same reason, equipment failure can have very serious consequences not just for the load, but also for any plant, building structures or staff in the vicinity.

Given that the risk of deterioration is ongoing, it clearly does not make sense to rely exclusively on a periodic thorough examination to ensure that lifting equipment remains safe to use, day in, day out. Instead, employers should ensure that a programme of in-service inspection is put in place to identify the day-to-day damage and wear and tear that can afflict lifting equipment. In contrast to thorough examination, this is likely to involve a relatively straightforward visual check, and is unlikely to be particularly time consuming. However, to be effective, it will need to be based on efficient control of all the lifting equipment on site. Otherwise, it is all too easy for equipment to remain in personal stores or toolboxes, and escape regular inspection.

Wherever feasible, the best policy is for lifting equipment to be retained in a single, central store. The person with responsibility for this facility can then implement a system which ensures that only equipment which has been inspected and cleared for use is issued. Written records should be kept, and any equipment that fails an inspection must be withdrawn from service for repair or disposal.

The staff who actually use the equipment also have an important role to play. Some equipment, such as slewing jibs and overhead cranes, will inevitably remain in situ.

Furthermore, items such as slings may be employed in several operations before being returned to stores, so it is vital that staff are trained to give them a visual inspection every time they are to be used. Equally, they must be encouraged to report any damage or problems, without fear of recrimination.

With effective procedures for in-service inspection in place, the thorough examination becomes a back-stop, rather than the front line of defence against the threat of potentially dangerous equipment slipping through the net.

Despite, or perhaps because, it is such a commonplace and well-established activity, the risks inherent in overhead lifting are easily forgotten. Unfortunately, accident reports all too frequently highlight the deaths and serious injuries that can occur when things go wrong. Even less catastrophic incidents often result in major economic costs and serious disruption to manufacturing schedules. Clearly the causes of such accidents are many and varied, and often include 'human' failures in terms of planning, supervision and training. However, ensuring that lifting equipment is consistently fit for purpose is another vital element of any programme that aims to maintain high standards of health and safety.

By implementing and maintaining a system that combines both in-service inspection and thorough examination of lifting equipment, employers will have taken a major step towards achieving this particular goal.

