Riggingcall #3

A look at things (impartially, of course) from a rigging point of view.

Talking about "testing" lifting equipment often seems to confuse. It has been a legal requirement for a long time, but what does testing mean? It seems many people don't know that much of the equipment they use on a daily basis has never been tested with a load, as they suppose it has. Technically, equipment must either be new or have a report of thorough examination signed by a competent person before it used - sometimes both; and in many ways that is all that we need to know. So what constitutes this 'testing' every six or 12 months?

The more complex the equipment, and the greater the risks involved in using it, the more exacting the test. A good deal of information can be gained from visual inspection. If the person conducting the test is competent, they should be able to determine the sort of life the equipment has already had and might be expected to have in the future. The competence required may be defined as having sufficient knowledge and experience to determine if the equipment being tested is free from defects likely to affect safety.

The experience of the person carrying out the test is as important as the test. Many theatre flymen would have no idea how to test a chain motor without training and information; by the same token, many hoist engineers would not be competent to inspect a counterweight set without understanding how they are used. Other lifting equipment may need to be thoroughly examined by several competent people - electrical engineers and mechanical engineers, for example.

LOLER (Lifting Operations and Lifting Equipment Regulations 1998) is clear that the nature of the test or thorough examination should be determined by a competent person. The Approved Code of Practice for LOLER states third party inspection is necessary when the required competence is not available in-house. Interestingly, LOLER does not require independent (third party) testing, as is often assumed. Many users of lifting equipment already undertake inspections of their slings, shackles and other lifting accessories. The inspection of hoists, trusses, chain slings and more complex equipment will need to be outsourced if the necessary competence is not available in-house. Check with your insurers - they may also require certain criteria to be met.

Many tests are visual and follow simple procedures to ensure all aspects of the equipment are covered. A shackle, for example, would be checked for obvious deformation, corrosion and poor operation. Dimensions and other features can be checked against manufacturer's information to support decisions. However, the cost of a shackle compared to the cost of the consequences of it failing makes the decision to replace it a no-brainer.

A hoist requires a more detailed look. It will need to be identified and its service history checked, but functional tests of things like brakes, limit switches and overload devices are necessary: in the case of a hoist brake or overload device this will mean a load test. This should not be so severe as to damage the hoist, and the hoist is designed to be tested with load: a competent person will know how.

A truss requires a visual test - relatively easy, but time consuming. Every member should be checked for true, gouges and dents. Each weld needs checking but if the truss is painted, this is sometimes impossible to do, even with specialist knowledge.

In summary, if you think you are competent to inspect your lifting equipment in compliance with LOLER, you are probably already doing so. If you feel you need to ask if you are competent, you probably aren't.

Training and education news

ESTA's Entertainment Technician Certification Program (ETCP) 'Certified rigger program' is being launched later this year. There are two certificates - 'theatre rigger' and 'arena rigger'. Each examination costs $600, although sitting both in the same year attracts a $200 discount. Members of IATSE, ESTA and other trade bodies benefit from a discount.

The panel of ETCP experts worked with psychometricians to produce the computer-based, three-hour, 150-question multiple choice papers drawing on the ability to recall information, apply principles and assess the suitability of given solutions to problems. There is no practical examination, but there is a 30 point entry requirement - points being derived from work experience or education or a combination of both.

Based solely on work experience, a candidate would need proof of about three years' work (3,000 hours), equal to about 20 hours' rigging per week, or 18 months' full-time rigging employment or in apprenticeship. A postgraduate degree in an entertainment technology subject provides 10 points, leaving about a year (2,000 hours) of documented work to provide the rest.

It seems a well thought-out scheme, and the UK rigging community will follow its progress with interest. The first examinations are due to be held at LDI in November. Congratulations to ESTA in being the first to deliver a dedicated rigging certificate for the entertainment industry.

Legislation & Standards

As you may know, the postponed Work at Height Regulations will come into force on the 6 April 2005, so by the time you read this they will finally be in force. Although the Regulations really only represent existing best practice, there are many areas where they will have an impact on rigging work. Rigging Call will be devoting the next edition (L&SI July-August 2005) to some extra information regarding how they may affect the entertainment industry.

Kit

A neat bit of kit for a fiver, the 'Ergodyne Squid' (squid?) is an elasticated lanyard for small tools up to 6.8kg. They come with a small 'do not use for climbing' karabiner you may want to replace, but otherwise seem a vast improvement on the curly type beloved of lampies everywhere. A cord lock secures the elastic if no hole is provided in the tool. A useful way of reducing the risk of tools falling when working at height.

Next time: Work at height, and double chain hoist brakes.