

Health and Safety Department

# **Policy for the Management of the Lifting Operations and Lifting Equipment Regulations (LOLER)**

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## 1. Policy Statement

LOLER place duties on the University and employees, who own, operate or have control over lifting equipment. This includes the use of lifting equipment on campus, whether owned by them or not. In most cases, lifting equipment is also work equipment so the Provision and Use of Work Equipment Regulations (PUWER) will also apply (including inspection and maintenance).

LOLER is supported by L113 Safe use of lifting equipment: Approved Code of Practice (ACOP) and additional free guidance from HSE.

The failure and/or misuse of lifting equipment can potentially cause serious personal injury, significant damage to property and loss of time and money. Failure of any load-bearing part of any lifting equipment is reportable to the Health and Safety Executive as a Dangerous Occurrence under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (2013) (RIDDOR)

If you undertake lifting operations or are involved in providing lifting equipment for others to use, you must manage and control the risks to avoid any injury or damage.

Where you undertake lifting operations, you must:

- Plan them properly
- Use only people who are competent and trained
- Supervise them appropriately
- Ensure that operations are carried out in a safe manner
- Ensure lifting equipment and accessories are appropriate for task;
- Mark Safe Working Loads [SWL] or Work Load Limit (WLL) on lifting equipment and accessories.
- Thoroughly examine and inspect lifting equipment and accessories.

### **Applicable regulations and legislation**

Most lifting equipment and lifting accessories will also fall within the scope of the Machinery Directive, as implemented by the UK Supply of Machinery (Safety) Regulations. Such equipment must have been subject to conformity assessment and be appropriately CE / UKCA marked and accompanied by a Declaration of Conformity (DOC) before being placed on the market or brought into use. This includes lifting equipment such as manually operated chain blocks and car jacks.

The DOC must accompany the new product and is an important document, which should be retained by the user. The DOC may avoid the need for an initial thorough examination before first use in those cases where the safety of that equipment does not depend on the conditions of its installation or assembly.

There are other legal duties that need to be followed:

- The Management of Health and Safety at Work Regulations 1999
- The Workplace (Health, Safety & Welfare) Regulations 1992 and
- The Provision and use of Work Equipment Regulations 1998
- The Personal Protective Equipment at Work Regulations 2022

- the Supply of Machinery (Safety) (Amendment) Regulations 2011

BS 7121-1:2012 Code of Practice for Safe Use of Cranes has been used in the preparation of this policy.

This policy seeks to establish consistent standards across both campus locations, providing guidelines on the responsibilities of relevant personnel involved. A LOLER Decision Tree has been issued by HSE and is presented in Appendix 1.

## 2. Scope

This policy sets out what managers, staff, students and tenants have to do to ensure the safety of people when using lifting equipment or when using passenger and goods lifts. When an object or person is lifted and lowered there are risks from:

- Equipment failure resulting in the object or person being lifted or lowered to fall, injuring persons beneath;
- Collapse of equipment or its components which fall onto persons causing injury;
- During the operation of lifting equipment persons being injured by being crushed. Struck or falling.

### 2.1 Definitions

#### **What is a lifting operation?**

Regulation 8(2) of LOLER defines a lifting operation as "an operation concerned with the lifting or lowering of a load".

#### **What is lifting equipment?**

'Lifting equipment' means work equipment for lifting and lowering loads and includes its attachments used for anchoring, fixing or supporting the equipment. This includes: cranes, lift trucks, goods and passenger lifts, hoists, elevating access or work platforms, tractor front-end loaders, vehicle tail lifts; and the "lifting accessories" such as ropes, chains, slings shackles, eye bolts, etc.

#### **Guidance:**

Within the University many Schools/Professional Services will have equipment and operations that they may not traditionally associate with lifting or lowering loads. Examples include ropes used for climbing or work positioning during arboriculture; fall arrest systems for working at height; vehicle tail lifts; mobile elevating work platforms (MEWPs).

'FS' refers to the Facilities Services. FS is responsible for all passenger and goods lifts throughout Loughborough University.

"Competent person" with regard to thorough examination of lifts and lifting equipment is a person/organisation with sufficient technical and practical knowledge to be able to detect any defects and assess how significant they are. The competent person should be sufficiently independent and impartial to allow them to make an objective assessment.

#### **Guidance:**

It is not advisable for the same person who performs routine maintenance to carry out the thorough examination, as they are then responsible for assessing their own work.

The competent person appointed by Loughborough University for conducting 'thorough examinations' is currently the British Engineering Services (B.E.S) Engineer Surveyor. The 'thorough examination' is sometimes termed an 'insurance inspection'.

### **3. Responsibilities**

The primary regulations applicable to this guide are the Lifting Operations and Lifting Equipment Regulations (LOLER) 1998.

#### **Selecting the right equipment**

LOLER requires that lifting equipment must be of adequate strength and stability. This adds to the general obligations under PUWER regarding the suitability of work equipment.

Lifting equipment should be positioned or installed in such a way as to reduce the risk, as far as reasonably practicable, of the equipment or load striking a person, or of the load drifting, falling freely or being unintentionally released.

Where people are being lifted, there are additional requirements to prevent people from being injured in / by the carrier, including more frequent thorough examinations.

Any School and Professional Service that is responsible for lifting equipment (which includes hoists, cranes, fork lift trucks, chains, ropes, lifting accessories, Jacks, and lifting beams) must:

- Identify all lifting operations and equipment;
- Appoint a competent person(s) to be responsible for each item of lifting equipment owned or used by the School/Professional Service
- Ensure that lifting operations are planned. undertaken and supervised by trained and competent persons:
- Maintain lifting equipment;
- Examine and inspect lifting equipment as required under LOLER. or in accordance with a written scheme of examination that has been drawn up by a competent person
- Keep inspection. test and maintenance records;
- Ensure that before lifting equipment is used. it is examined by the user for any signs of physical damage, and if damaged is taken out of use;
- Ensure that lifting equipment is sufficiently strong, stable and suitable for the proposed use;
- Ensure that the load and anything attached (e.g. pallets & lifting points) are suitable:
- Ensure that lifting equipment is positioned or installed to prevent the risk of injury, e.g. from the equipment or the load falling or striking people:
- Ensure that lifting equipment and accessories e.g. slings. Clamps. Are visibly marked with information to be taken into account for its safe use e.g. safe working loads.

#### **3.1 Duty Holder: COO (senior person responsible)**

The Chief Operating Officer (COO) is the Statutory Duty Holder and, as the senior person responsible, has overall accountability for all aspects of the management of health and safety in the University organisation.

### 3.2 Duty Authorised Person

A person, employed by the University, with the required knowledge, training and experience, appointed by the Director of Estates in writing, to take managerial responsibility for the implementation of policy and procedures for a specific area of health and safety legislation.

Key duties include:

- To ensure overall compliance in regard to LOLER.
- To review and update as necessary the University LOLER Policy.
- To assist and offer advice in regard to LOLER across all areas of the University.
- Ensuring the LOLER Register is up to date.
- Ensuring there are an adequate number of Authorised Persons appointed across the University, so that LOLER compliance can be managed at a local level
- To ensure that all insurance written schemes are produced.
- To ensure inspections are carried out in accordance with the risk assessment
- To gain assurance from departments that asset (insurance inspection) tagging is taking place with current in date colour code chart being displayed where all lifting equipment is stored/used. Presented example Appendix 3:

The regulations impose responsibility onto a person who has control to any extent of :-

- (i) lifting equipment;
- (ii) a person at work who uses or supervises or manages the use of lifting equipment; or
- (iii) the way in which lifting equipment is used.

### 3.3 Authorised Person

A person, either employed by the University or another organisation, possessing proficient technical knowledge and having received appropriate training, appointed by the Duty Authorised Person in writing to take responsibility for the implementation of policy and procedures as specified of a specific area of H&S legislation. There will be Authorised Persons appointed in different areas across the University, supporting local teams in complying with this Policy.

### 3.4 Competent Person

The operative / individuals, either employed by the University or another organisation, recognised by the Authorised Person as having the competence to undertake the task and follow the relevant process / procedure. This person undertakes the task at the place of work and, in the context of this Policy, can be one of the following:

- Slinger / Signaller
- Inspector of Lifting Equipment
- Crane operator

### 3.5 Facilities Services

Facilities Services (FS) are responsible for the asset ownership and maintenance of LOLER infrastructure. Refer to appendix 2 for visual examples of asset ownership.

### 3.6 Facilities Services Electrical Manager

FS are responsible for meeting the requirements of LOLER in so far as they apply to goods and passenger lifts. Therefore, responsibilities for the safe installation, commissioning, maintenance, inspection and test are delegated to the FS Electrical team leader.



FS Electrical Service Manager engage competent third parties as the electrical team don't possess the specialised skills necessary. The FS Electrical Service Manager must ensure, where lifting equipment is maintained by Contractors, that:

- A risk assessment is completed and current for each passenger and goods lift and lifting operation;
- The thorough examination of lifts are carried out at agreed appropriate intervals by a competent person and resultant remedial work is carried out in a timely fashion;
- Inspections and maintenance are carried out between the examinations in accordance with the equipment manufacturer's information and the risk assessment;
- Where necessary, a written scheme of examination is prepared for lifting equipment
- Adequate records are kept in compliance with LOLER.

### 3.7 Duties Deans of Schools & Directors of Professional Services

Deans and Directors are responsible for ensuring that there are suitable delegated staff in their areas of responsibility to discharge the following duties:

- Ensure that all lifting operations undertaken by their staff or students are identified
- Ensure the operators and their supervisors are given the necessary information, instruction and training
- Ensure that initial planning is carried out by those with appropriate knowledge and expertise (i.e. the right equipment and resources are chosen for the task)
- Ensure that the individual lifting operations are planned and carried out by competent persons with appropriate knowledge and expertise establishing a safe system of work
- Ensure that the lifting equipment is satisfactorily maintained
- Ensure that mobile lifting equipment and accessories for lifting loads and people are strong and stable enough for the particular use and are clearly marked to indicate their safe working loads; CDM regulations 2015 should be consulted.
- Ensure that lifting equipment is positioned and installed to minimise risks
- Ensure that lifting equipment which is designed for lifting people is clearly marked to this effect and vice versa for equipment not designed for lifting people e.g. goods lifts
- Cooperate with arrangements made for thorough examination and testing by a 'competent person' (i.e. the 'insurance inspector') followed by resultant remedial work
- Ensure that LOLER is complied with where relevant and the risk of the use of lifting equipment is satisfactorily controlled
- Seek further information and advice as necessary, before lifting operations are undertaken.

### 3.8 Duties of staff, building occupants, tenants, students

All staff, students and other building occupants, e.g. tenants and members of the public, must:

- Not use lifting equipment unless they have been properly trained
- Not travel in goods lifts;
- Not overload passenger or goods lifts;
- Report any defects associated with passenger or goods lifts to FS (via the operational reporting software package or FS Help Desk, tel 01509 222121);
- In the event of being trapped out of hours, follow the emergency procedures in the lift and use the Telephone or intercom to contact Security (Telephone 01509 222141);
- Never attempt to escape from a broken-down lift.



### 3.9 Equipment Hire / Loan

Occasionally, external organisations loan or provide lifting equipment to the University for research or development use and studies. For example, medical equipment for lowering persons is used by a University department to study its effectiveness. In these instances, Loughborough University do not own the asset, but are temporarily loaned it.

Those hiring out equipment for use at work are considered as suppliers under section 6 of the Health and Safety at Work Act and so have broad responsibilities for the safety of the products they hire out. This includes (so far as reasonably practicable) pre-hire testing and inspection to ensure continued safety, and the provision of information.

Although they need to look for obvious safety defects (in terms of the initial safety of CE / UKCA-marked equipment), those hiring out equipment do not have to go into the detailed design of that equipment or enhance its safety beyond the requirements of the relevant product supply

Directive - provided the product is CE / UKCA marked, accompanied by user instructions and, where relevant, a Declaration of Conformity.

Those hiring out work equipment also have responsibilities under PUWER (and if lifting equipment LOLER), in so far as they exercise control over that equipment (for example, ensuring the thorough examination of lifting equipment and other routine inspections have taken place at the required intervals). It may be appropriate for the user to organise the periodic thorough examinations (which should be by written agreement, particularly for long-term hire). However, unless part of the hire agreement, those hiring out work equipment can't normally be responsible for the day-to-day and other pre-use safety checks which should be undertaken by the user.

All loaned equipment being used by Loughborough University requires a Temporary Asset Loan Form completing and returning to the Universities Insurance Officer. **(Appendix 6)**

## 4. Planning Lifting Operations

### 4.1 Risk assessment

A risk assessment should be undertaken to identify the risks of the proposed lifting operation assisting with a selection of measures to eliminate or adequately control the risks proportionate to the magnitude of risk. Initial planning

For all lifting activities the supervisor shall ensure that every lifting operation involving lifting equipment is—

- properly planned by a competent person
- appropriately supervised; and
- carried out in a safe manner

The degree of planning will vary considerably, depending upon the type of lifting equipment to be used and the complexity of the lifting operation for which it will be used. This preliminary action must ensure that the equipment selected is suitable for the range of tasks that it will have

to carry out. It must be strong and stable enough for the particular use, and must be installed correctly.

**Guidance: Checklist to assist in the selection of suitable lifting equipment**

**Consider: -**

*The weight and nature of the load to be lifted*  
*What lifting accessories are needed?*  
*Where is the load to be moved from and to?*  
*How often will the equipment be used for this task?*  
*In what environment will the equipment be used?*

#### 4.2 Planning of individual lifting operations

For routine lifting operations the planning of each individual lifting operation will be a matter for the operators who have the appropriate knowledge, training and expertise.

For complex lifting operations it may be necessary to plan the task on each occasion.

For much more complex lifting operations (e.g. a tandem lift using multiple cranes), a written plan should be developed by a person with significant and specific competencies - adequate training, knowledge, skills and expertise - suitable for the level of the task.

**Guidance:** An example of an action sequence for an individual routine lifting operation:

- Assess the load
- Select any appropriate accessories.
- Check the path of the load this must surface and ground conditions.
- Prepare its setting-down position.
- Check the condition of the equipment and any accessories that secure the load
- Make the lift, Release the load.

**Loads must not be carried or suspended over areas occupied by persons. This is particularly important where the load is being lifted over areas used by persons not engaged in the lifting operation, e.g. other members of staff, students or members of the public.**

Arrangements must be put in place to prevent unauthorised access to the area under the load, e.g. barriers or tapes, and signage.

#### 4.3 Competence

Appropriate supervision will be determined by the nature of the work, and the competence of those involved in using the equipment.

Information and instruction must be provided for safe use of the equipment. Operators and those supervising the operation must receive training which should:

- Enable staff to identify that lifting equipment is, or is not, safe to use;
- Enable staff to carry out pre-use checks on the lifting equipment. to identify faults or damage;
- Enable staff to use equipment safely.

### 5. Lifting of Persons

A higher risk is recognised when lifting equipment is used to lift persons. Examples include the use of Mobile Elevating Work Platforms (MEWP) which are often used by SDC and Facilities Services. More stringent requirements (LOLER reg. 5) are imposed for this equipment. These requirements are for measures to:

- Prevent a person using the lift/lifting equipment being crushed, trapped or struck or falling from the carrier

- Prevent the carrier falling
- Ensure a person trapped in a carrier can be freed.

People should only be raised on work equipment that is specifically designed for that purpose. Nobody should ever be lifted in a loader bucket, on the forks of a fork-lift truck or a similar attachment not designed for the purpose.

Where a person in a carrier (work platform) might fall and be injured:

- The carrier should be fitted with edge protection being suitable for the purpose and should be securely fixed to the carrier;
- The edge protection should be sufficiently high and be either solid, mesh or. If in the form of rails. Should have a top rail, intermediate rail and a toe board;
- The lifting equipment to which the carrier is attached should have a device to prevent the carrier becoming detached. This includes the basic attachment of the carrier to its lifting machine as well as any other devices necessary, e.g. if a carrier is fitted on telescopic loader the loader would need to have a hydraulic lock-off valve for the tilt mechanism;
- A means of escape from the carrier should be available. This could include a ladder stored nearby.

The requirement for thorough examination and inspection for lifting equipment used to lift people is at a greater frequency, particularly where equipment is exposed to conditions liable to cause its deterioration - see Section 6.

#### **Guidance:**

Between 2 and 12 inspections are carried out on all passenger and goods lifts by the University's appointed lift contractor, who will agree any resultant remedial works with FS.

The University's appointed lift contractor carries out quality checks on the lifts to ensure that the works have been completed satisfactorily. They also prepare specifications for new lifts and witness test the lift installation and commissioning.

The FS Lift Procedures Manual is held on the FS Maintenance Workspace. The Workspace also gives access to competent persons' report, risk assessments, inspection reports and overload

## **6. Thorough Examination and Inspection**

### **6.1 Thorough examination**

Thorough examinations must be carried out by a competent person (Insurance assessor):

- Initially before equipment is taken into service;
- Following installation where safety is dependent on correct installation;
- Following any exceptional event (such as an incident) or long period without use;
- Periodically where lifting equipment is exposed to conditions which may cause deterioration which could lead to a dangerous situation.

LOLER requires the periods between routine thorough examinations are:

- Every 6 months for passenger lifts and other lifting equipment which lifts persons;
- Every 6 months for lifting accessories;
- Every 12 months for all other lifting equipment.

Visual tagging will be used following examination as an instant way of identifying equipment that is safe to use. See Appendix 3 for more details.

A written examination scheme must be prepared with regards to the equipment's assessed risk.

## 6.2 Inspections

Inspections between the thorough examinations may, as an outcome of the risk assessment, be found to be necessary. These may consist of functional checks and visual examinations at suitable intervals. They will normally be required where the safe operation of the lifting equipment is dependent on its condition in use and deterioration could lead to significant risks. Examples of such conditions include:

- Rapid wear from use in an arduous environment;
- Failure through repeated operation;
- Malfunction;
- Tampering with safety devices.

The inspection schedule that is appropriate will take account of the risk assessment and the equipment manufacturer's information. Additional external competence may be required when producing these schedules.

Any person carrying out elements of the inspection schedule, e.g. the operator, user or supervisor, must have an appropriate level of competence to do so.

Lifting equipment which may require regular inspection is likely to include fork-lift trucks and hoists. Lifting accessories such as chains or slings will not normally require an inspection so long as they receive a thorough examination at an appropriate interval, and a proper pre-use visual check. See Appendix 4 for details. Pre-use Visual checks

Pre-use checks must be carried on the lifting equipment before being used by a competent operator during each working day. The aim of such checks is to pick up faults due to day-to-day wear and tear and malfunction of safety-related equipment. If any defects are found the user or operator should report the defect and remove the equipment from service or, if competent to do so, take action to rectify it.

A trained operator or other person carrying out the checks should be able to identify damage to lifting ropes and accessories, distortions to shackles and other obvious faults which could affect the safe operation of the lifting equipment or accessories. Faulty or defective equipment should be withdrawn from service, destroyed and records amended/edited accordingly.

## 6.3 Procurement of lifting equipment and accessories

Equipment should be sourced from credible suppliers experienced in the sector and with access to sound technical and training support. It should be CE / UKCA marked and supplied with a Declaration of Conformity and instructions in English.

All lifting equipment including accessories, must be clearly marked to indicate their 'safe working loads' (SWL) or 'work load' (WLL) limit which is the maximum load the equipment can safely lift.

Where the SWL / WLL of any equipment or accessory depends on its configuration, the information provided on the SWL / WLL must reflect all potential configurations. For example, where the hook of an engine hoist can be moved to different positions, the SWL / WLL should be shown for each position.

Accessories must also be marked to show any characteristics that might affect their safe use which may include the weight of the parts where their weight is significant. Some lifting equipment may be used in corrosive atmospheres – ensure the environment in which it will be operating in is assessed for its suitability. Particular specifications may be needed to ensure it is compatible.

The University's internal Procurement Regulations Process must be followed at all times. If in doubt or to obtain further assistance, contact the appropriate member of the Procurement Department, details for which can be found at the link below:

<https://internal.lboro.ac.uk/info/finance/staff/procurement/>

### Asset Ownership

For all items of lifting equipment, an asset owner must be identified. The objective of this is to ensure it is maintained and serviced, keeping it compliant.

The principles of who owns which asset is listed in Appendix 2. For any disagreements on asset, an arbitration route will be used to agree ownership of asset responsibilities.

## 7. Record Keeping

All B.E.S inspected equipment should be colour tagged and dated (**See Appendix 3**) from its last inspection any equipment not of the correct colour tag should not be used and quarantined until inspected. **IF it is not tagged or the tag is out of date DO NOT USE!** All equipment that is inspected will be registered.

Records must be kept by the person responsible for the lifting equipment, of:

- Thorough examination reports of first use or new installation (other than of lifting accessories) for so long as the equipment is kept, or is in newly installed location;
- CE / UKCA declarations of conformity - for so long as the equipment is kept;
- Routine thorough examinations reports of all lifting equipment - for at least 2 years. Or until the next report, whichever is longer;
- Written examination schemes, where appropriate.

This documentation shall be retained on a single electronic register, accessible throughout the University so that the responsible department can upload the information onto it. The Facilities Information Team (FIT) own this register, which will be an integral part of the asset management system.

## 8. Further Advice and Information

- The Lifting Operations and Lifting Equipment Regulations 1998: SI.1998/2307 (HMSO)
- Safe Use of Lifting Equipment; Approved Code of Practice and Guidance: LI 13 (HSE)
- The Provision and Use of Work Equipment Regulations 1998: SI. 1998/2306 (HMSO)
- Safe Use of Work Equipment Approved Code of Practice and Guidance: L22 (HSE)
- The Management of Health and Safety at Work Regulations 1992: SI.1992/2051 (HMSO)
- Management of Health and Safety at Work: Approved Code of Practice: L21 (HSE)
- Thorough examination and testing of lifts- Simple guidance for lift owners. HSE INDG 339.
- The Safety Assessment Federation (SAFed) publishes guides to 'best practice' in the examination and inspection of lifting plant - Guidelines for the supplementary tests of in-service lifts (L G1).

## 9. Equipment not covered by (Loler) but is under (Puer)

LOLER is wide in its scope. Some equipment might appear to be 'lifting', but is not covered by LOLER. Some notable exceptions that are not covered by LOLER include:

- pallet trucks, where the consequence of the load falling off is very low
- roller shutter doors
- fall arrest ropes / harnesses
- rise and fall desks

However, where this equipment is used at work, it will need to be maintained for safety and may (in some cases) be subject to inspection under the Provision and Use of Work Equipment Regulations (PUWER). Link to regulations: [PUWER](#).



## Appendix 1 - Lifting Operations and Equipment Compliance Checklist

**The following summarises the features of LOLER; indicates hazards and corresponding risks; and implies appropriate control measures.**

Using this checklist, together with the Initial Planning checklist, will constitute an assessment of the risks associated with the provision and use of lifting equipment.

Adequate responses to these checks will lead to the development of a safe system of work with lifting equipment.

Material of equipment's manufacture suitable for the conditions of use?

1. Adequate strength and stability of equipment?
2. Access prevented to any dangerous parts of equipment/machinery?
3. Safe means of getting on/off or in/out of equipment. Including safe release in the event of breakdown?
4. Equipment operator's position without slipping/tripping risk?
5. Equipment's operation is ergonomic?
6. Operator protected from harmful environment?
7. Starting equipment; changing its operating conditions; stopping it; or stopping it in an emergency is only achieved by deliberate operation of appropriate controls with desired state achieved in a safe manner?
8. Warnings or warning devices easily recognised and understood without ambiguity?
9. Equipment marked (incl. any accessories) with safe working load and any information for its safe use?
10. Suitable lighting provided such that the equipment may be used and the operation conducted safely?
11. Storage of equipment in conditions that do not lead to damage or deterioration?
12. Equipment maintained in a safe condition - without risk to persons carrying out the maintenance operation?
13. Operators inspect equipment before and after use?
14. Thorough examination and inspection of equipment by an independent competent person before being put into service for the first time and periodically thereafter?
15. Procedure established for notification of defects following thorough examinations and inspections?
16. Records of the equipment's CE / UKCA Declaration of Conformity. And of thorough examinations.
17. Kept for the required periods?
18. Safety of load handler (person attaching/detaching the load) and/or banksman?
19. Adequacy of headroom/floor space for the equipment and the load path?
20. Proximity to hazards such as other work equipment. Unsound surfaces. Electrical cables etc.?
21. Security of the load and its potential for spillage or disintegration?
22. Loads not passing. Or suspended. Over people?
23. Operator's visibility of load and its path?
24. If outdoors. The weather?

### **Guidance on planning, organising and undertaking lifting operations**

More detailed advice on the planning, organising and undertaking of lifting operations is provided in the [LOLER Approved Code of Practice and guidance](#).

Particular guidance is given on:

- competence of people planning lifting (regulation 8; ACOP)
- suitability, including strength and stability, of lifting equipment (regulation 4; ACOP)
- positioning of lifting equipment and visibility (regulation 6; ACOP)
- working under suspended loads (regulation 8; ACOP)
- attaching / detaching and securing loads (regulation 8; ACOP)
- location, including access (ACOP)
- environment of use, including operator protection, the effects of wind and mobility (regulation 8; ACOP)
- overturning (regulation 8; ACOP)
- proximity to other hazards, such as overhead power lines and buried services (regulation 8; ACOP para 265 onwards)
- derating (regulation 8; ACOP paras 111 and 274 onwards)
- the lifting of people (regulation 5; ACOP para 127 onwards)
- preventing overload (regulation 4; ACOP para 122 onwards)
- pre-use checks (regulation 8; ACOP para 285 onwards)
- the continued integrity of lifting equipment (regulation 8; ACOP para 289 onwards)

## Appendix 2 - Example of Asset Ownership

### Responsibilities for asset management – lifting equipment examples

The purpose of this document is to explain where responsibilities lie regarding lifting equipment. Pictorial examples have been used to explain the principles.

#### Scenario 1 – Lifting equipment that is part of the infrastructure<sup>2</sup>

For these types of lifting equipment, such as an overhead gantry crane shown in the picture below, it is classed as part of the infrastructure, because of its size, and integral part of the building structure. The management responsibilities are split as below:

- All equipment up to and including the crane hook is classed as the infrastructure. This is shown in a pink dotted line in the picture below. These items of equipment are recorded on the University single asset register for lifting equipment.
  - o It is the responsibility of Facilities Services to own, maintain and service these items of equipment.
  - o The users of this equipment (those persons in the relevant School / Professional Service / Tenant areas) have a responsibility to:
    - use it in accordance with the training that is provided to them
    - follow the manufacturer's instructions
    - highlight any defects with its operation to Facilities Services
  - All equipment in the green dotted outline is classed as a lifting accessory and recorded on the single asset register. It is the responsibility of the relevant School / Professional Service / Tenant to own, maintain and service this equipment.
- When the 3rd party lifting equipment inspector undertakes their checks, the School / Service / Tenant shall be responsible for locating and presenting their assets for inspection. The lifting accessories also need to be tagged / colour coded to the University standard – this is to ensure that only valid equipment is used.



## Scenario 2 – Lifting equipment that is locally specified and installed by the occupier

An example of this type of lifting equipment is a jib crane (shown in the picture below) that has been specified and installed by the School / Professional Service / Tenant. The lifting equipment is not part of the infrastructure of the building and, in some cases, it is mobile. These items of equipment are recorded on the University single asset register for lifting equipment.

The management responsibilities are clarified as below:

- It is the responsibility of the School / Professional Service / Tenant to own, maintain and service these items of equipment, and ensure that these items of equipment are recorded on the University single asset register for lifting equipment. Facilities Services have no asset responsibilities for these items of equipment.
- The users of this equipment (those persons in the relevant School / Professional Service / Tenant areas) have a responsibility to:
  - o use it in accordance with the training that is provided to them
  - o follow the manufacturer's instructions
  - o highlight any defects with its operation to the owner of the equipment (the nominated persons within the School / Professional Service / Tenant).
- When the 3rd party lifting equipment inspector undertakes their checks, the School / accessories also need to be tagged / colour coded to the University standard – this is to ensure

that only valid equipment is used. The Service / Tenant shall be responsible for locating and presenting their assets for inspection.

Example picture for classifying only.



### **Disagreements in ownership**

An agreed process based on a number of principles with an arbitration route will be used to agree ownership of asset responsibilities.



## Appendix 3 - Example Lifting Equipment Inspection Tagging Chart



### LIFTING EQUIPMENT COLOUR CODE

No lifting equipment shall be used, unless it carries the relevant colour code

#### CURRENT COLOUR CODE

2018

- Compliant until January 2018

It is the responsibility of the user to carry out pre-use checks on lifting equipment, to identify faults or damage which could affect its safe use

Lifting Equipment should be thoroughly examined in accordance with Regulations 9(5)(a) of the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER).

Talk to your usual British Engineering Services contact to find out more about how we can help you meet your Statutory Examination, Health & Safety and Engineering Risk Management needs.

Or call: **0345 678 2985**

Lifting tackle and general plant items should carry the colour coded cable tie, along with the relevant year slide. This should indicate the next due inspection Month / year.



MONTH	TIE COLOUR	MARKED IN	CODE
JANUARY	ORANGE	BLACK	SPK
FEBRUARY	ORANGE	WHITE	SPK
MARCH	YELLOW	BLACK	SPK
APRIL	RED	WHITE	SPK
MAY	WHITE	BLACK	SPK
JUNE	ORANGE	WHITE	SPK
JULY	LIGHT BLUE	BLACK	SPK
AUGUST	ORANGE	WHITE	SPK
SEPTEMBER	ORANGE	WHITE	SPK
OCTOBER	ORANGE	WHITE	SPK
NOVEMBER	PURPLE	WHITE	SPK
DECEMBER	NATURAL	BLACK	SPK

**COLOUR CODE CHART**



## Appendix 4 - Example Lifting Equipment Inspection Guidelines

### Lifting Equipment Accessories Inspection What to Look For?

#### WIRE ROPE

- Stretching and reduction of Rope Diameter
- Exposure of Inner Core
- Birdcaging
- Broken Wires (5% in 10 Diameters)
- Twisting
- Kinking
- Broken Strands (Take out of Service)
- Rust, Corrosion or Chemical Attack
- Mechanical Crushing
- Slippage of Rope from Ferrule
- Ferrule Damage

#### ROUNDSLINGS

- WLL
- Cuts (longitudinal and Lateral)
- Lumps or bunching of Inner Core Exposure
- Exposure of Inner Core
- Legible and Intact Label
- Solar Degredation
- Chemical Attack
- General Wear
- Damage by Misuse
- Failure of Stitching
- Weld Spatter Burns
- Rodent Attack

#### SHACKLES

- Illegible Markings (SWL /WLL)
- Incorrect and Free Working of Pins
- Damaged Thread on Pin or Tapped Eye
- Distorted Body or Pin-  
(The Maximum Permissible Wear on the Body or Pin is 8-10%)
- Nicks, gouges, Cracks or Corrosion
- All 4 Parts to a 4 Part Shackle  
(Body, Pin, Nut and Cotter Pin)
- Opening of Jaw
- Correct Alignment



#### FLAT WEBBING SLINGS

- WLL
- Opening of Eye
- Longitudinal and Lateral Damage
- Cuts
- Wear
- Stitching Damage
- Illegible Label
- Solar Degradation
- Chemical Attack
- A Polyester Sling has come into contact with Alkalies
- A Nylon Sling has come into contact with Acid
- A Polypropylene has come into contact with solvents



## Lifting Equipment Accessories Inspection What to Look For?

### CHAIN BLOCKS

- Casing
- Case Bolts
- Free Running
- SWL Marked
- Chain Damage
- Anchor Pins
- Split Pins
- Hook Damage
- Safety Catch

### PLATE CLAMPS

- Casing
- Case Bolts
- Wear on teeth (sharp and free from dirt)
- SWL Marked
- General Damage
- Lifting Eye Distortion
- Locking Assembly
- Clean and Free from Dirt and Grease

### CHAIN AND HOOKS

#### HOOKS

- SWL
- Hooks Swivels where Appropriate
- Retaining Pins
- Opening of Hook (10%)
- Distortion
- Broken or Bent Tip
- Safety Catch Working if Fitted
- Nicks & Gouges
- No Re-set Hooks

#### CHAIN

- General wear (8%)
- Elongation
- Nicks, Gouges, Cracks
- Bending and Distortion
- Mechanical Wear
- Bent and Deformed Master Links
- Terminal Fittings
- Mechanical Jointing Devices
- Different Length of Legs


### EYEBOLTS

Any Debris should be removed by Cleaning with a Wire Brush, then Examined for:

- Distortion – Such as Bent Shank, Deformed Eye, reduced Diameter at Undercut
- Thread Worn, Corroded, Damaged or Incorrect Formed
- Damage such as Nicks, Cracks, Gouges, Corrosion
- SWL, Thread Identification and ID Markings Missing or Illegible

**Under No Circumstances should Bent Eyebolts be Straightened**

## Appendix 5 - Example Statement of Conformity

 <div style="float: right; background-color: #555; color: white; padding: 2px 5px; font-weight: bold;">ENGLISH</div>	 <div style="float: right; background-color: #555; color: white; padding: 2px 5px; font-weight: bold;">ENGLISH</div>																		
<p><b>Datasheet</b></p> <p><b>RS Pro Shackle, D-Shackle, 1T</b></p> <p>RS Stock No: <b>674-049</b></p> <div style="text-align: center; margin: 20px 0;">  </div> <p><b>Product Details</b></p> <p>RS Pro D-shackle is suitable for lifting or for securing loads or plant. This shackle features high tensile galvanised steel shackles with screw pin. The shackle with 1/2 Inch diameter, withstands 1t load.</p> <p><b>Features and Benefits</b></p> <ul style="list-style-type: none"> <li>High tensile galvanised steel shackles with screw pin to BS3032: 1987</li> <li>Used for lifting or for securing loads or plant</li> <li>Screw pin</li> </ul>	<p><b>Specifications:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Finish</td><td>Zinc Plated</td></tr> <tr><td>Jaw Width</td><td>7/8 in</td></tr> <tr><td>Material</td><td>Steel</td></tr> <tr><td>Pin Diameter</td><td>5/8 in</td></tr> <tr><td>Pin Type</td><td>Screw Pin</td></tr> <tr><td>Safe Working Load</td><td>1 t</td></tr> <tr><td>Shackle Diameter</td><td>1/2 in</td></tr> <tr><td>Shackle Type</td><td>D-Shackle</td></tr> <tr><td>Standards Met</td><td>BS 3032:1958</td></tr> </table>	Finish	Zinc Plated	Jaw Width	7/8 in	Material	Steel	Pin Diameter	5/8 in	Pin Type	Screw Pin	Safe Working Load	1 t	Shackle Diameter	1/2 in	Shackle Type	D-Shackle	Standards Met	BS 3032:1958
Finish	Zinc Plated																		
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<small>RS, Professionally Approved Products, gives you professional quality parts across all products categories. Our range has been tested by engineers as giving comparable quality to that of the leading brands without paying a premium price.</small>	<small>RS, Professionally Approved Products, gives you professional quality parts across all products categories. Our range has been tested by engineers as giving comparable quality to that of the leading brands without paying a premium price.</small>																		

09/05/2018



### RS Components

#### Statement of conformity

The product detailed below complies with the specifications published by RS Components. Where applicable it provides assurance that electrostatic discharge sensitive devices have been handled and packed under conditions that meet the administrative and technical requirements of the ANSI/ESD S20.20:2014 and BS EN 61340-5-1:2007 Electrostatic Control Standards.

RS Stock No.	674-049
Description	RS Pro Shackle, D-Shackle, 1T
Manufacturer/Brand:	RS Pro
Mfr. Part No.	

The foregoing information relates to product sold on, or after, the date shown below.

RS COMPONENTS

Date May 9, 2018

RS Components Ltd, Birchington Road, Corby, Northamptonshire, NN17 9RS, UK

## Appendix 6 - Temporary Asset Loaned Form



Temporary Asset  
Loaned Form 2017-2

**Temporary Asset Loan Form** ( enter school/dept. name:..... )

Ensure all relevant documents are attached, (for example: hire loan agreement form supplier/owner of equipment).



<b>Full details of ownership :- company name, address etc</b>	
<b>Full description of equipment on loan</b>	
<b>Replacement cost (value) £:</b>	
<b>Will there be a charge to the university for this loan? BREAKDOWN AND COST BELOW :</b>	
<b>Does equipment meet required BSEN/CEN standards?</b>	<b>PATest is required and date carried out?</b>
	<b>PSSR or LOLER inspection required by LU?</b>
<b>Has a risk assessment been completed, when and who has signed?</b>	<b>What training has been given and by whom to who?</b>
<b>Has equipment operational note been written/ received and by who?</b>	<b>School/Dept. asset number?</b>
<b>Where will equip be used/stored? State lab/room no: &amp; building</b>	<b>Will the equipment be secure? ( eg: authorised persons entry only )</b>
<b>Full duration of loan (exact date required)</b>	
<b>From:</b>	
<b>To:-</b>	

**ASSESSMENT OF RISK:**

TRIVIAL / TOLERABLE / MODERATE / SUBSTANTIAL /  
INTOLERABLE

**ACTIONS TO FURTHER CONTROL RISK:**

**SIGNATURE:**

**DATE:**

## Appendix 7 - Reporting of Near Misses and Accidents

All accidents and near misses involving lifting operations shall be reported via the Assure-Portal . A link to the system is given below:

<https://app.uk.sheasure.net/lboro/p/LBU/>