

Inspection and maintenance of lifting equipment

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Targeted Inspection Campaign

- Carried out over parts of West Yorkshire in October 2010
- Highlighted a general confusion about legal requirements surrounding the maintenance and thorough examination of lifting equipment.

Inspection and maintenance of lifting equipment

1. Bradford Targeted Inspection Campaign
2. Applicable Legislation
3. Definitions and Type of Lifting Equipment
4. Thorough Examination
5. How and when things go wrong
6. A closing analogy

Applicable legislation

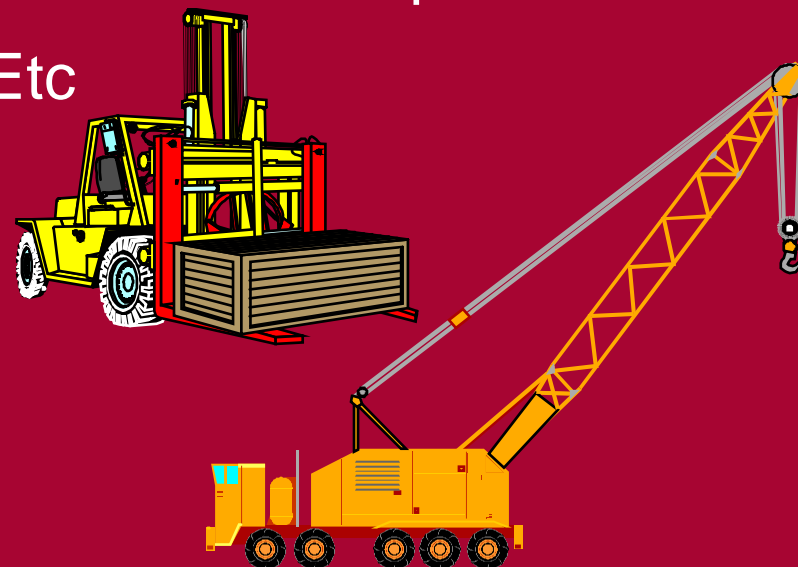
- **Lifting Operations and Lifting Equipment Regulations 1998 (LOLER)**
 - Inspection requirements
- **Provision and Use of Work Equipment Regulations 1998 (PUWER)**
 - Maintenance requirements
- **Supply of Machinery Safety Regulations 2008**
 - Supply requirements
- **Others!**

Definitions

- Lifting equipment – equipment for lifting or lowering loads, including attachments for anchoring, fixing or supporting the lifting equipment
- Lifting accessory – equipment for *attaching* loads to machinery for lifting
- Load – includes a person or persons

Applicable equipment

- Cranes
- Forklift truck chains
- Goods lifts
- Chain slings
- Hooks
- Hospital hoists
- Eyebolts
- Vehicle inspection hoists
- Passenger lifts
- Shackles
- Slings
- Gin wheels / ropes
- Etc



Types of Lifting Equipment



Types of Lifting Equipment



Types of Lifting Accessories



LOLER - scope

Ensuring the ongoing safety of lifting equipment

Numerous requirements extending to safe use of the equipment

But....

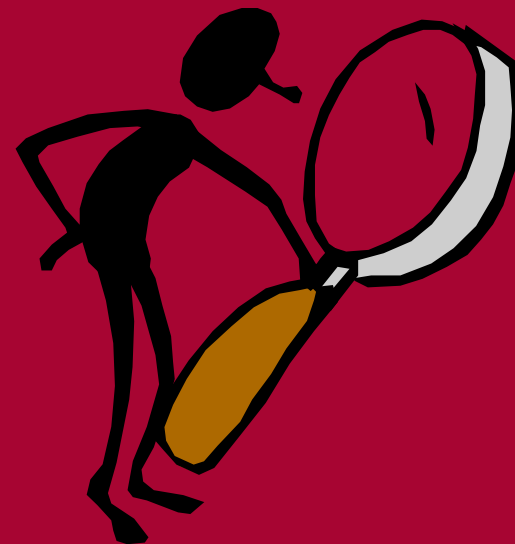
Specific expectations with respect to thorough examination and inspection

LOLER Reg. 9 – Thorough Examination

“Lifting equipment subject to conditions causing deterioration”

THOROUGH EXAMINATION AND INSPECTION

- **Thorough examination**
 - Initial
 - After installation
 - In use
 - Exceptional circumstances
- **Periodic Inspection**
 - In use



Thorough examination

INITIAL

- Before being put into service for the first time, lifting equipment is thoroughly examined for any defect unless:
 - It has not been used before and an EC Declaration was made less than 12 months before (e.g. under SMR or Lifts Regs 1997)
 - Physical evidence if the equipment is obtained from another person

Thorough examination

AFTER INSTALLATION

Where the safety of the lifting equipment depends on the installation conditions:

- After installation and before being taken into use
- After assembly and before being put into service at a new location

Purpose - *To ensure that it is installed correctly and is safe to operate*

Thorough examination

IN USE

- Lifting equipment is thoroughly examined if exposed to conditions causing deterioration (All equipment deteriorates in use)
- Examination frequency
 - Lifting accessories or equipment lifting people – at least every 6 months
 - All other equipment – at least every 12 months
 - **Or**, In accordance with an examination scheme
 - **And**, each time an exceptional circumstance may have an effect on ongoing safe use of the equipment

Thorough examination

EXAMINATION SCHEME

- Drawn up by competent person
- Specifies parts to be examined
- Specifies interval for test / examination
- Capable of being produced as a written copy
- Different parts may be examined at different times
- (Possible tests may be required – load test, NDT)

Thorough examination

COMPETENT PERSON

- Someone with appropriate practical and theoretical knowledge and experience of the equipment to enable them to detect defects or weaknesses and assess their importance in respect of the continued safe use of that equipment

NOT NORMALLY IN-HOUSE

- Should be suitable independent and impartial to make objective decisions regarding the equipment



Inspection

IF APPROPRIATE

- Inspection at suitable intervals in-between thorough examinations to ensure that health and safety conditions are maintained and deterioration is detected and remedied in good time

'IN HOUSE'



Thorough examination

REPORTING OF DEFECTS

A person making the thorough examination shall notify the employer

- Any defect which could become a danger to persons
- Specify a timescale for repair
- Provide a report to the employer / equipment owner (this should be retained until next examination)

Existing or imminent risk of serious injury:

- Notify the enforcing authority – Adverse insurance report

Report of Thorough Examination

- Content of what should be contained in the report is specified in schedule 1 of LOLER



Exclusions (in ACoP)

- Tractor 3-point linkage
- No vertical movement (e.g. winching)
- Unassisted movement (manual handling)
- Low 'lifting risk' (e.g. escalator)
- PPE (e.g. window cleaner's harness)
- Something lifting part of itself (e.g. refuse vehicle)



Maintenance

PUWER scope – safe use equipment and machinery

Various provisions extending from suitability of equipment, to guarding, training and systems of work

Duties also extend to suitable maintenance of that work equipment

Lifting equipment is work equipment

SMSR - Summary

- Must be Safe (Regs. 7)
- CE marked
- Comply with Essential Health and Safety Requirements (EHSR) Schedule 2, Part 4,
- Have a Conformity assessment and a Declaration of Conformity or incorporation
- Applies to all lifting equipment and accessories

When things go wrong

Failed levelling rods on a MEWP not thoroughly examined for 3 years



When things go wrong

Broken arm locking device on a 2-post vehicle lift



When things go wrong

Damaged fork to FLT



When things go wrong

- Worn Steel ropes and fibre slings – Inspection?



Analogy

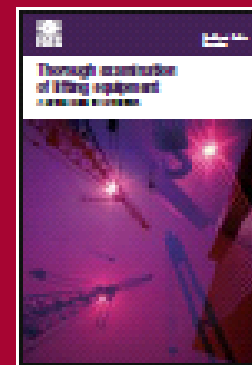


Road Traffic Legislation

- Service and maintain Roadworthy
- MOT

Further Information

- L113 Safe Use of Lifting Equipment Approved Code of Practice and Guidance
- INDG422 Thorough Examination of Lifting Equipment – Guidance for Employers
- Both available as free eBooks or as priced hardcopy publications from HSE Books at <http://books.hse.gov.uk> or 01787 881165



Any Questions?

