



Examining Clients Tackle

9th July 2019



Nottingham Chartered Insurance Institute

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Inspection Network Ltd





WHAT DO YOU THINK ENGINEERING INSPECTION IS ALL ABOUT?

ANY IDEAS?





WHY IS IT SO IMPORTANT?





STILL DON'T THINK YOUR CLIENTS NEED STATUTORY INSPECTION?

THINK AGAIN



A manager at a plant hire firm has been jailed for two years over a platform collapse in Glasgow that killed one worker and seriously injured another.



An investigation by the Health and Safety Executive (HSE) revealed that the third main boom section of the crane buckled, causing the platform's basket to fall to the ground. Hamilton based Craig Services and Access Limited was fined after being found guilty of three charges relating to the collapse, including failures in relation to its maintenance. Another firm, JM Access Solutions Ltd, was fined for its failure to carry out a thorough examination of the platform and its safety-critical parts.





4 MAIN STATUTORY REGULATIONS

- LOLER** - The Lifting Operations and Lifting Equipment Regulations (1998)
- PUWER** - Provision and Use of Work Equipment Regulations (1998)
- PSSR** - Pressure Systems Safety Regulations (2000)
- COSHH** - Control of Substances Hazardous to Health (2002)



LOLER

The Lifting Operations and Lifting Equipment Regulations (1998)

Statutory Regulations and Legal requirements relating to the use of lifting equipment



WHAT IS THE PURPOSE OF LOLER?

Generally, the Regulations require that lifting equipment provided for use at work is:

1. strong and stable enough for its use and marked to indicate both unique numbers & safe working loads
2. positioned and installed to minimise any risks
3. used safely, i.e. the work is planned, organised and performed by competent people and
4. subject to on-going thorough examination and, where appropriate, inspection by competent people.



WHAT IS LOLER APPLIED TO

“Anything that Lifts or that is involved in the process of lifting”

WHICH INCLUDES WHAT?

Vehicle lifts, jacks, engine cranes, vehicle recovery equipment, Slings, eyebolts, shackles, lifts, wheelchair lifts, patient hoists, overhead cranes, mobile cranes

THE LIST GOES ON AND ON!!

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FREQUENCY OF INSPECTION

Most lifting equipment such as overhead cranes, Fork Lift Trucks, Chain blocks etc. are inspected at a frequency of 12 months





FREQUENCY OF INSPECTION

However If the equipment is denoted as lifting Tackle (slings shackles, eyebolts etc.) or if the item in question is involved in the lifting of people (passenger lifts, Mobile elevated Work Platforms, cranes or Fork lifts with man baskets) then a 6 monthly inspection is required





FREQUENCY OF INSPECTION

However the legislation has many grey areas where the frequency can be extended by our engineers if they deem it fit to do so. Man riding baskets where used very infrequently to change a lightbulb for instance can be inspected on a 12 monthly basis.





FREQUENCY OF INSPECTION

Vehicle Lifts are inspected every 6 months however LOLER states every 12 months. This is due to the HSE issuing a general guidance note stating 6 monthly inspections should be done which should be adhered to even though is not legislation





NOW THAT'S A PROPER SHACKLE!!!



This Shackle has a Lifting Capacity of 1400 tonnes and takes 4 men just to put the pin in!



WE ALSO MUST COMMENT ON THE OPERATION OF THE MACHINERY AS WELL





SEEN AT A PROSPECTIVE CLIENTS PREMISES!!!

What is going on here!!



This is wrong on every level



CHINESE VEHICLE LIFT

This is one of the ropes inside a vehicle lift.

ITS 6 MONTHS OLD

The client had no idea that his lift could have collapsed at any time





POWER

The Provision and Use of Work Equipment Regulations (1998)

Statutory Regulations and Legal requirements relating to the use of Work Equipment



WHAT IS THE PURPOSE OF PUWER?

Generally, the Regulations require that equipment provided for use in the workplace is:

- suitable for its intended use
- safe for use, maintained in a safe condition and, in certain circumstances, inspected to ensure this remains the case
- used only by people who have received adequate information, instruction and training; and
- accompanied by suitable safety measures, e.g. protective devices, markings, warnings.



WHAT IS POWER APPLIED TO

“Anything that is deemed to be Work Equipment”

WHICH INCLUDES WHAT?

hammers, knives, ladders, drilling machines,
power presses, circular saws, photocopiers, kettles,
hole punches, dumper trucks, motor vehicles etc.

Similarly, if your clients allow employees to provide their own equipment, it too will be covered by POWER and you will need to make sure it complies and is inspected.



EXEMPTION

Do we need to inspect all PUWER items?

No – providing that the client maintains a written record of examination and/or maintenance and can demonstrate that the items concerned are checked regularly that satisfies the PUWER Regulations. Standard risk assessments can achieve this. Some items however are beyond the technical knowledge of your clients and a competent person needs to carry out an examination.



PSSR

Pressure Systems Safety Regulations (2000)

Statutory Regulations and Legal requirements relating to the use of Pressure Plant and its associated Pipework



WHAT IS THE PURPOSE OF PSSR?

The Regulations define 3 different Types of System:-

1. A system comprising a pressure vessel, its associated pipework and protective devices i.e. Steam Boiler
2. a scheme of pipework with its protective devices to which a transportable pressure receptacle is, or is intended to be connected i.e. Tyre Changer
3. a pipeline with its protective devices i.e. compressed air pipework



WHAT IS PSSR APPLIED TO

**“Any Machine that works with
stored pressure”**

WHICH INCLUDES WHAT?

Air Receivers, Steam Boilers, Autoclaves, Coffee Boilers, Water Heaters, Steam Jacketed Pans



LOOK AT THIS BOILER – NOTHING SEEMS WRONG





This is what happens when people buy cheap sub standard equipment.
The boiler is so badly corroded inside it has been condemned. Its 18 months old and the client paid £10,000 for it. For a replacement he will be looking at £20,000.

The boiler is Chinese – bet you couldn't guess



SOME CLIENTS JUST DON'T CARE

What you are about to see is a standard test

We over pressurize the boiler to ensure that the safety valve works.

There is a split in the pipe and what should vent outside the building is venting inside the factory.

This was noted as a defect that had to be repaired immediately due to the burn hazard





SO WHAT CAN GO WRONG?

FIRETUBE
BOILER
EXPLOSION



COFFEE BOILERS

What is a coffee boiler?

It is sometimes referred to as a café boiler and a coffee machine boiler can be defined as:

- any closed vessel used, during the production of hot beverages, for the purpose of generating, storing, and supplying steam and hot water.

What regulations does it fall under?

- **PSSR** (Pressure Systems Safety Regulations)
- **HASAWA** (Health & Safety at Work Act)
- **PUWER** (Provision and Use of Work Equipment Regulations)



WHAT ARE WE LOOKING FOR?

WARNING – YOU MAY NEVER WANT TO DRINK HOT DRINKS FROM A SHOP
AGAIN



This is scale inside a coffee boiler that built up over a period of 9 months
(it doesn't affect coffee though as that is filtered)



SO WHAT COULD CAUSE AN EXPLOSION?



Example of a good clean working Safety Valve



A Badly Limescale damaged valve restricting flow of water into boiler



SO WHAT HAPPENS WHEN IT DOES ALL GO WRONG?



This mangled wreck of metal on the floor of a supermarket cafe was once an industrial-sized coffee machine that sat behind the counter.

It exploded due to an over pressurisation of a safety valve, blasting a hole in a wall and injuring 15 people.

Six people were taken to hospital with back and neck injuries. the most serious injuries being burns and shrapnel wounds to the head, arm, eye, back and neck.



COSHH

Control of Substances Hazardous to Health (2002)

**Statutory Regulations and Legal requirement relating
to the control of Hazardous substances**



COSHH

(Control of Substances Hazardous to Health 2002)

What are we actually interested in?

Dusty or fume-laden air can cause lung diseases, e.g. in welders, quarry workers or woodworkers, Foundry workers and any form work that involves paint spraying.

Working with any substances which can be considered hazardous to health



WHAT IS COSHH APPLIED TO

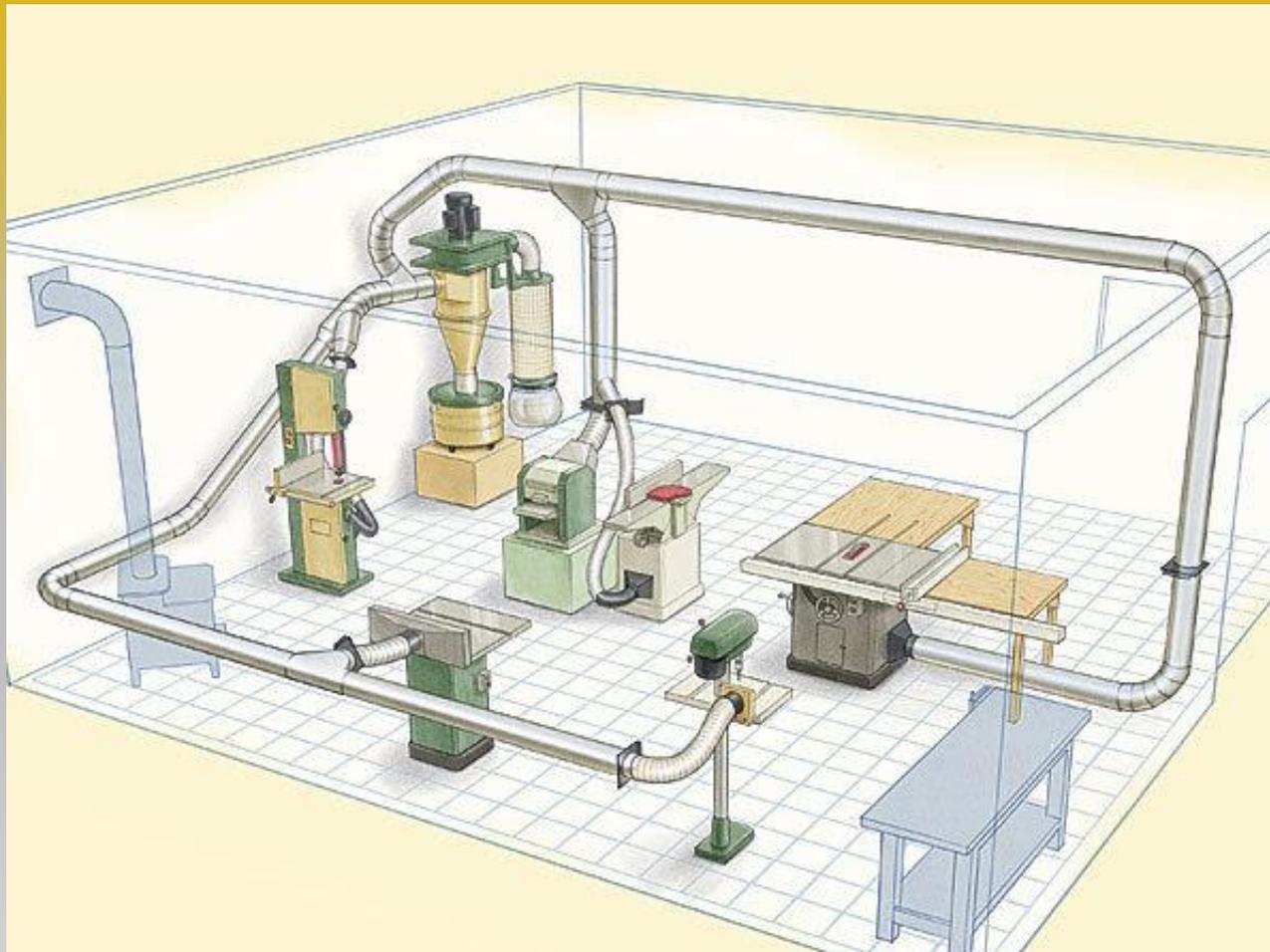
“Anything that removes harmful particulates from the working environment”

WHICH INCLUDES WHAT?

All Extraction Systems i.e. woodworking extraction, spray booths, Fume cupboards, Shot Blast Cabinets, Vehicle Exhaust Extraction etc.



EXAMPLE OF A DUST EXTRACTION SYSTEM





HOW FAST CAN FLAME TRAVEL?





EXTERNAL THIRD PARTY REPORTS

We asked a client to obtain a third party Air sampling as our engineer was concerned that there was too much dust.



**When we saw the report
their written conclusion was
that there was no clear evidence
of dust. We beg to differ!!**

I will let you decide



FIXED WIRING EXAMINATIONS

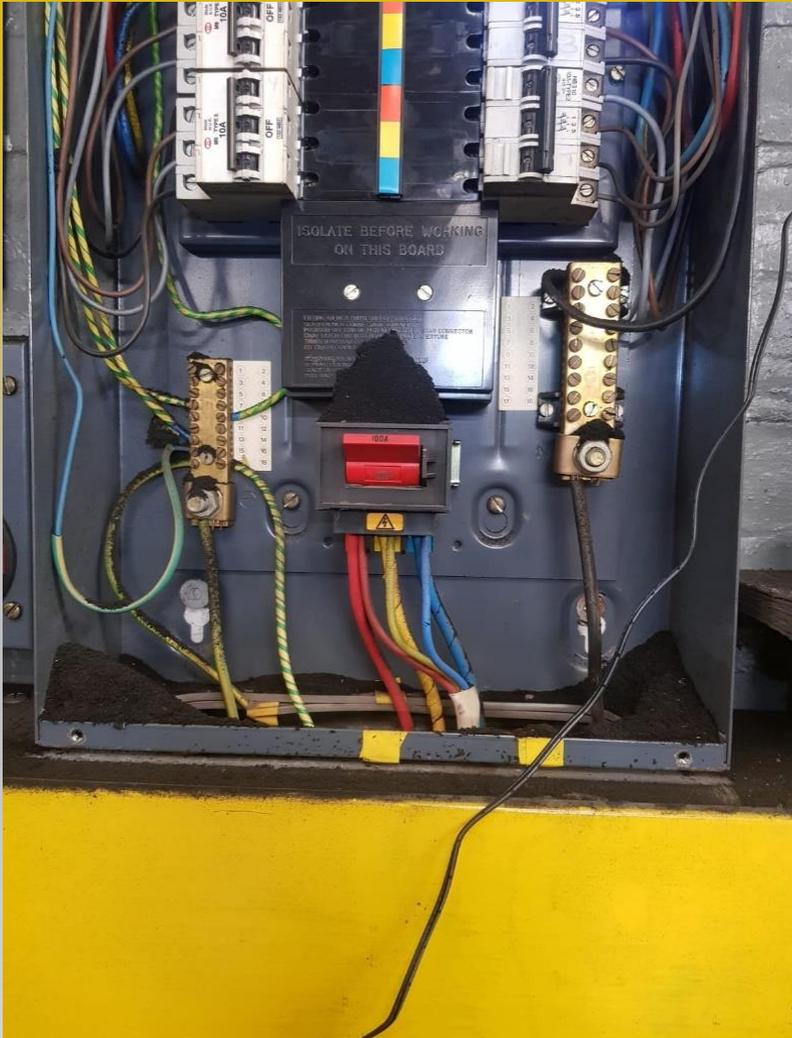
18th Edition BS 7671

Legal requirements relating to the issue of reports confirming the status of the Fixed Wiring in Commercial Premises.



DO YOUR CLIENTS NEED A FIXED ELECTRICAL INSTALLATION REPORT?

- Faulty or old fixed electrical installations are one of the main causes of fire in commercial properties.
- Not only is it a legal requirement under the Health and Safety at Work Act that companies have their fixed electrical installations checked by an approved electrician and a periodic Inspection report issued, it is also likely to be either a Condition of or a Warranty on your clients current insurance policy.
- **What is the difference between a Condition and a Warranty?**
- **Condition**
- **In the event of any fire the insurers will request a copy of the periodic inspection report confirming that the installations have been tested and approved in line with BS7671, if a current report cannot be supplied then insurers will be able to decline indemnity.**
- **Warranty**
- **This is far more onerous than a Condition as your insurer could void your clients ENTIRE policy on the breach of a Warranty even if the breach had no bearing on the loss incurred.**

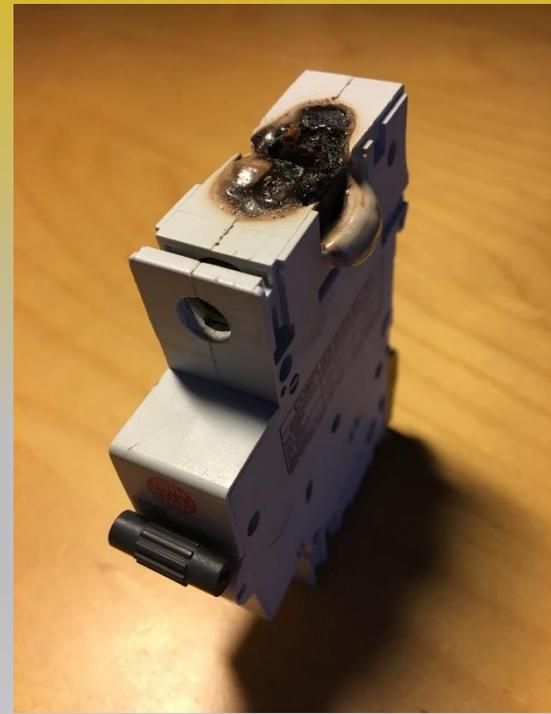
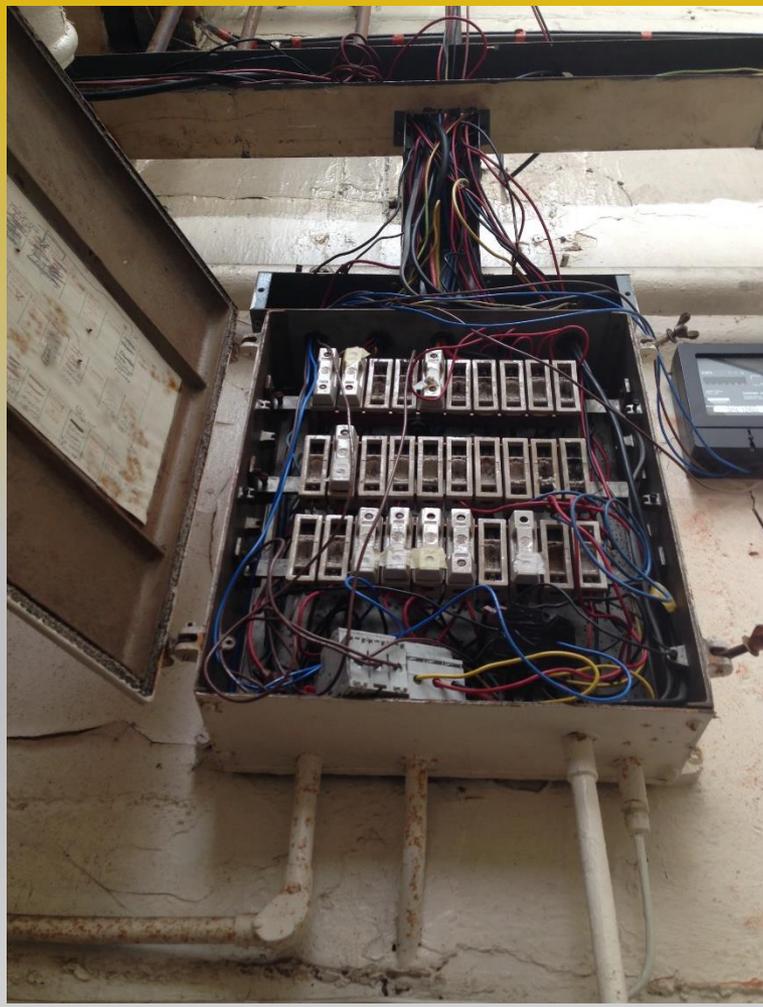


The little black deposits are rubber dust from tyres that are being repaired.

This is a fire just waiting to happen as the middle deposit is directly over the main switch where the likelihood of arcing (sparking) across the terminals is very high.

Until we carried out this examination the client had no idea his business could have gone up in smoke.

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WHEN IT GOES WRONG – IT REALLY GOES WRONG?





INTERPRETING INSPECTION REPORTS

What people tend to forget is that an inspection report done on behalf of the client is never and will never be a pass or a fail.

However many clients look at reports with suspicion and will react accordingly and we have found that most of the time it's simply that they don't understand the layout of the report and what is being said.

Remember it is important to let your client know that the report reflects the status of the equipment in question at the time of examination i.e. a snapshot of its condition.

Owner:

Lifting Operations and Lifting Equipment Regulations 1998.

Location:

Record of Thorough Examination

Contract Number

Report Number

Page 1 of 1

Item Description	Scissor Mobile Work Platform	
Plant Number	-	
Serial Number	220204	
Model / Type	SJ1113219	
Manufacturer	Skyjack	
Year of Manufacture	-	
Location at Site	Workshop	
Safe Working Load	227 Kg	
Nature of Examination	Regular Thorough	Examination Frequency: 6 Months

Defects which are an imminent danger to persons and require immediate action: None

Defects which will become a danger to persons if unactioned: None

Other Defects, Observations and Recommendations:

Other Defects:
 The tyres are worn and scrubbed.
 The Emergency Stop button is not fully retained.
 The nearside rear bump stop is damaged.

Recommendations:
 The braking and steering systems be maintained and regularly tested for satisfactory operation.
 Unless already a fixture and brought to our attention this item should be fitted with an anti-tilt safety device which upon activation should cease all further unsafe movements.
 The item be used and maintained in accordance with a suitable risk assessment and manufacturer's instructions.

Date of last thorough examination (if known): Not Known

Latest date by which the next thorough examination must be carried out: 26/02/2015

The above equipment was subjected to Thorough Examination by the undersigned. Where existing defects noted on this report are an imminent danger to persons, we have a legal obligation to forward a copy of this report to the relevant enforcing authority. The report reflects the condition and the status of the plant at the time of visit.

Examined By: *AMA* Examination Date: 26/08/2014

Qualification: Engineer Surveyor

Address: Unit A, Wallyford Industrial Estate, Wallyford, East Lothian, EH21 8QJ
 Tel: 0845 6026683

Signature:

Company Number 5321245

Date of Making This Record: 01/09/2014



This section gives the general details of the plant. It normally never changes apart from the site location or the plant number (if the client creates a new asset list)

Any Defects that are in this section will be accompanied by an Emergency Defect Notice as the defect could cause injury as it is an imminent Danger. A copy of the Report will be sent to the HSE

Any defects that are in this section need to be actioned however the HSE or enforcing authority will not usually be informed

This can be split into 3 sections. Other Defects, Recommendations and Observations. Once we have looked at the item concerned, these are the engineers thoughts based on what he has seen. It is up to the client as to whether they act on any of these, however if un actioned it could be elevated to the next defect stage.





SOCIAL MEDIA

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We will be updating company information, HSE changes and updates, news, training and other information which you may find interesting.

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And Finally

