

Engineering inspections

Are you complying with UK Law?

Guide to plant and equipment legislation and examinations



Failure to comply with UK health and safety legislation can have serious consequences for businesses, such as reduction in workforce efficiency, increased risk of accidents and ill health, enforcement by the Health & Safety Executive and heavy fines or even imprisonment. A critical area of health and safety for businesses is the examination of plant and equipment to comply with various legislation.

Plant and equipment

This table provides information on various example plant and equipment types, and applicable UK legislation

Plant category	Example plant	Legislation
Pressure	<ul style="list-style-type: none"> – Air receiver⁽¹⁾ – Air conditioning⁽²⁾ – Steam boiler – Blowdown tank – Hot water boiler (pressurised) – LPG storage/liquified natural gas vessels – Storage of hazardous fluids 	<ul style="list-style-type: none"> – Autoclave – Boiling pans (steam) – Canteen boiler (steam) – Steam receiver – Refrigeration plant⁽²⁾ – Safety valves/pressure control valves <p>PSSR</p>
Lifting	<ul style="list-style-type: none"> – Crane (e.g. portal, pedestal, overhead, tower, mobile, jib, swing jib) – Portable crane (e.g. engine) – Runway track – Suspended access equipment – Chain block (powered or manual) – Winch (powered or manual) – Fork lift truck (e.g. sideloader, reach, rough terrain) – Escalator – Lifting accessories (e.g. slings, eyebolts, shackles, chains) – Mobile elevating working platform – Rescue harness 	<ul style="list-style-type: none"> – Rope blocks – Sheer legs – Stairlift – Trolley/carriage – Work handler – Wheelchair lift – Straddle carrier – Vehicle tailboard lift – Telehandler – Mobile gantries – Passenger/goods lifts – Builders' hoist – Man basket <p>COMAH LOLER</p>
Electrical systems	<ul style="list-style-type: none"> – Electrical installations – Portable appliance testing – Quarries 	<ul style="list-style-type: none"> – Hazardous area installations – Petrol dispensing areas – Public entertainment licence inspections <p>EAWR & DSEAR</p>
Electrical/mechanical	<ul style="list-style-type: none"> – Diesel engine and alternator – Power transformer – Electric motor pump – Compressor – Water turbine/generator 	<ul style="list-style-type: none"> – Fan – Gas engine – Oil/coal/gas burner unit – Rectifier <p>PUWER</p>
Power presses and associated machinery	<ul style="list-style-type: none"> – Friction screw press – Guillotine (electric/hydraulic) – Pneumatic press (fixed or moveable guards) – Plastic injection moulding machine – Machines incorporating photo electric guarding 	<ul style="list-style-type: none"> – Hydraulic power press/press brake (fixed/moveable/interlocking guards) – Mechanical power press/press brake (fixed/moveable/light/interlocking guards) – Servo press (fixed/moveable/interlocking/photo electric guards) <p>PUWER</p>
Local exhaust ventilation	<ul style="list-style-type: none"> – Dust extraction (e.g. wood, metal, blasting of castings, etc) – Fume extraction (e.g. paint, gases, etc) 	<p>COSHH & CLAW</p>

Legislation

PSSR The Pressure Systems Safety Regulations 2000

LOLER The Lifting Operations and Lifting Equipment Regulations 1998

EAWR The Electricity at Work Regulations 1989

PUWER The Provision and Use of Work Equipment Regulations 1998

COSHH The Control of Substances Hazardous to Health Regulations 2002

COMAH The Control of Major Accident Hazards Regulations 2015

DSEAR The Dangerous Substances and Explosive Atmospheres Regulations 2002

CLAW The Control of Lead at Work Regulations 2002

For Northern Ireland, similar statutory equipment legislation is applicable, however, the year of implementation of the regulation is normally different.

(1) Legislation applicable if receiver is connected to a system containing a vessel greater than 250 bar/litres.

(2) Legislation applicable if plant exceeds 25kW with a vessel over 250 bar/litres.

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Legislative examination requirements

This table provides a list of typical plant, noting the relevant legislative examination requirements (including typical frequencies)

Plant	Legislation	Legislative requirements
Pressure systems	PSSR	Require a Written Scheme of Examination. The Written Scheme determines the frequency and nature of examinations. Typical frequencies for examinations are:
<ul style="list-style-type: none"> – Steam boilers, vessels and systems – Air receivers and other gas systems (over 0.5 bar pressure or 250 bar/litres capacity) – High pressure hot water systems (over 110°C) – Refrigeration systems/air conditioning plant with compressors over 25kW (combined input power) and a vessel over 250 bar/litres capacity 		<ul style="list-style-type: none"> – Steam systems: 14 months – Air systems: 26 months – Other gases: 5-10 years
– Storage of hazardous fluids	COMAH	– May require Written Scheme of Examination
Lifting	LOLER	
– Passenger lifts		<ul style="list-style-type: none"> – Any place of work: 6-monthly statutory thorough examination – Property owners: duty of care under Health and Safety at Work Act for common areas. 6-monthly thorough examination advised
– Escalators		– Statutory where the Workplace (Health, Safety & Welfare) Regulations 1992 applies in places of work
– Lifting machines, cranes, etc.		– Annual thorough examination
– Lifting accessories (chains, ropes, etc)		– 6-monthly examinations
– Lifting persons		– 6-monthly examinations
– Excavators		– Annual thorough examination (if used for lifting)
Fixed electrical systems	EAWR	
– Commercial premises		– 5-yearly inspection and testing is considered appropriate for most premises
– Industrial premises		– 3-yearly inspection and testing
– Quarries	DSEAR	– Annual or 6-monthly inspection and testing
– Hazardous areas		– 1-3-yearly inspection and testing
Power presses and associated machinery	PUWER	
– Mechanical presses (including mechanical press brakes)		<ul style="list-style-type: none"> – Thorough Examination by a Competent Person at 6/12-monthly intervals, depending on the type of guarding employed – Examination of enclosed parts and tests of the electrical system to HSG236 (Health & Safety Executive guidance)
– Hydraulic/pneumatic/servo presses (including press brakes)		– Inspection by a Competent Person at 6/12-monthly intervals, depending on the type of guarding employed
Local exhaust ventilation	CLAW & COSHH	
– Fume and non-metallic dust extraction		– 14-monthly examinations (usually examined annually)
– Metallic dust extraction		– Six-monthly examinations if used more than 12 hours per week; otherwise, 14-monthly examinations
– Blasting of castings	COSHH	– Monthly examinations

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