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the law

**England, Scotland and  
Wales**

Provision and Use of Work  
Equipment Regulations 1998  
(PUWER)

Lifting Operations and Lifting  
Equipment Regulations 1998  
(LOLER)

**Northern Ireland**

Provision and Use of Work  
Equipment Regulations  
(Northern Ireland) 1999  
(PUWER)

Lifting Operations and Lifting  
Equipment Regulations  
(Northern Ireland) 1999  
(LOLER)

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# Lifting By Machine

If you are an employer or a self-employed person providing lifting equipment for use at work, or if you control the use of lifting equipment, you must make sure it is safe.

Think about the risks that lifting equipment can have. Some risks include the following:

- Damage or deterioration of the equipment caused by wet, abrasive or corrosive environments
- Trying to move weights that are too heavy and exceed the load limit of the machine
- Equipment failure
- Untrained workers planning the lift or using the equipment
- People being struck by the machinery's moving parts or by falling items

After identifying your risks, think about how to manage them. Lifting needs to be properly planned by a competent person, appropriately supervised and carried out safely. Any equipment you use must have been properly designed, manufactured, tested and maintained.

## ***Factors you should consider***

- What are you lifting?
- How heavy is it?
- Where is its centre of gravity?
- How will you attach it to the lifting machinery?
- Who is in control of the lift?
- What are the safe limits of the equipment?
- Could you rehearse the lift if necessary?

## ***Dos and don'ts of safely lifting with machinery***

**Do:**

- Use only certified lifting equipment, marked with its safe working load. The equipment should not be overdue for examination.
- Keep the examination reports as well as any declarations of conformity or test certificates.

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- Make sure the load is properly attached to the lifting equipment. If necessary, securely bind the load to prevent it slipping or falling off.
  - Before lifting an unbalanced load, find its centre of gravity. Raise it a few inches off the ground and pause. There should be little harm if it drops.
  - Use packaging to prevent sharp edges from damaging slings, and do not allow tackle to be damaged by being dropped, dragged from under loads or subjected to sudden loads.
  - When using jib cranes, make sure indicators for safe loads are working properly and are set correctly for the job and the way the machine is configured.
  - Use outriggers where necessary
  - When using multi-slings, make sure the sling angle is taken into account.
  - Have a responsible slinger or banksman and use a recognised signalling system.

**Don't:**

- Use unsuitable equipment, such as kinked or twisted wire ropes, frayed or rotted fibre ropes, or makeshift, damaged or badly worn chains shortened with knots.
- Exceed the safe working load of machinery or accessories like chains, slings and grabs. Remember that the load in the legs of a sling increases as the angle between the legs increases.
- Lift a load if you doubt its weight or the adequacy of the equipment.

