

## Safe Manual Handling Practices

One of the leading causes of accidents involving injury in recent annual JIB Surveys of Reportable Accidents at Work is manual handling. Similarly, the HSE has identified that incorrect manual handling is one of the most common causes of injury at work.

Musculoskeletal disorder (MSD – damage to the bones, joints, nerves or muscles) accounts for over a third of all workplace injuries<sup>1</sup>, and poor manual handling practice can lead to musculoskeletal injury. If it happens, the effects may be short, or long term.

This Health and Safety Bulletin is designed to help electricians and their employers to ensure they engage in good manual handling practices, to ensure health and safety.

### Relevant Legislation

The Manual Handling Operations Regulations 1992, as amended in 2002, apply to manual handling activities, including lifting, lowering, pushing, pulling or carrying.

The Regulations require employers to:

- Avoid the need for hazardous manual handling, so far as is reasonably practicable
- Assess the risk of injury from any hazardous manual handling that cannot be avoided and
- Reduce the risk of injury from hazardous manual handling, so far as is reasonably practicable

Employers are also required under health and safety legislation to consult union safety representatives about all health and safety issues including manual handling and to provide information, instruction and training in manual handling.

All workers should:

- Follow safe systems of work, to ensure their health and safety
- Co-operate fully with their employer on health and safety matters
- Use equipment that is provided to ensure health and safety
- Inform their employer if they identify hazardous handling activities
- Ask their supervisor if they are not sure about any manual handling task.

### Workers at Risk

Poor manual handling practice can injure anyone, anywhere. Heavy manual labour, awkward postures, manual materials handling, and previous or existing injury are all risk factors in developing MSDs.

### Controlling the risks

Employers are responsible for controlling the health and safety risks in their workplaces. Employers have legal obligations to carry out risk assessments.

A risk assessment is about identifying significant risks and implementing sensible and proportionate risk control measures in the workplace.

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<sup>1</sup> [www.hse.gov.uk/statistics/causdis/musculoskeletal/index.htm](http://www.hse.gov.uk/statistics/causdis/musculoskeletal/index.htm)

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Employers should consult with union safety representatives and involve them in risk assessments.

### Tips for avoiding unnecessary or unsafe manual handling

- Does the plant or equipment need to be moved or can the activity be actioned safely where the item already is?
- Can raw materials be delivered directly to their point of use?
- Can tasks be automated or can handling aids be used?

These could include:

- A conveyor
- A pallet truck
- An electric or hand-powered hoist
- A lift truck.

### Lifting heavy objects safely

The following is intended as guidance on the safe lifting of heavy objects:

1. Know where you are taking the object before you begin
2. Check if the item has handles which you could use
3. Make sure you are standing directly in front of the item you wish to lift
4. Position your feet evenly (shoulder width apart)
5. Keep your back straight and stand up tall
6. Tighten your stomach muscles
7. Squat to the floor by bending your knees- DO NOT move your upper body
8. Take hold of the object firmly with both hands
9. Distribute the weight evenly - make sure you are not unbalanced
10. Keeping the object close to your body, begin to stand up by straightening your legs
11. Stand up slowly. Do not move quickly or jerk when doing this
12. You can now walk with the object
13. If carrying a large object which restricts your view, ask if someone can guide you.
14. When placing the item down, bend your knees
15. Remember to keep your back straight as you bend down again
16. Be careful to lower each side of the object to the floor separately

### Good handling technique for pushing and pulling

The following are practical points to remember when loads are to be pushed or pulled:

#### Handling devices

Aids such as barrows and trolleys should have handle heights that are between the shoulder and waist. Devices should be well maintained with wheels that run smoothly.

#### Force

As a guide the amount of force that needs to be applied to move a load over a flat, level surface using a well-maintained handling aid is at least 2% of the load weight. For example, if the load weight is 400kg, then the force needed to move the load is 8kg. The operator should try to push the load rather than pull, provided they can see over it and control steering and stopping.

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### Slopes

Workers should get help from another worker whenever necessary, if they have to negotiate a slope or ramp as this can increase pushing and pulling forces. For example, if a load of 400kg is moved up a slope of 1 in 12, the required force is over 30kg. This is above the guideline weight for men and well above the guideline weight for women.

### Uneven Surfaces

Moving an object over soft or uneven surfaces requires higher forces. On uneven surfaces, the force needed to start moving the load could increase to 10% of the load weight.

### Stance and Pace

To make it easier to push or pull, workers should keep their feet well away from the load and proceed no faster than walking speed. This will help to prevent tiredness.

### Twisting

Reduce guideline weights if the handler twists to the side during the operation. As a rough guide, reduce them by 10% if the handler twists beyond 45 degrees and by 20% if the handler twists beyond 90 degrees.

### Frequent lifting and lowering

The guideline weights are for infrequent operations – up to about 30 operations per hour – with adequate rest periods.

## **Further Resources**

For further information on MSDs click here:

<http://www.jib.org.uk/documents/content/files/JIB%20H%26S%20Bulletin%201508%20MSDs.pdf>

<http://www.hse.gov.uk/construction/healthrisks/physical-ill-health-risks/manual-handling.htm>

## **Workers and consultation**

<http://www.hse.gov.uk/construction/cdm/2015/workers.htm>

<http://www.citb.co.uk/documents/cdm%20regs/2015/cdm-2015-workers-printer-friendly.pdf>

<http://www.unitetheunion.org/unite-at-work/healthsafety/>