

# **Unit 11: Working as a Team to Move and Handle Resources**

**Unit reference number:** T/502/3696

**QCF level:** 1

**Credit value:** 4

**Guided learning hours:** 40

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## **Unit aim**

This unit introduces learners to safe resource handling techniques and the physical consequences of poor resource handling. Learners are given opportunities to work in teams to handle resources safely.

## **Unit introduction**

This unit introduces learners to the regulations and guidance that apply to manual handling operations and explains how unsafe manual handling techniques can lead to injury.

Learners will have the opportunity to explore the techniques used to move and handle resources such as materials, components and fixings. They will perform these techniques both with and without the use of simple lifting aids, alone and as part of a team.

Learners will learn to work in a responsible and cooperative manner as they move and handle resources safely. They will work as effective members of a team by following instructions and communicating effectively with other members of the team.

When preparing for work in the construction industry it is important that learners are able to seek and respond to guidance from colleagues and teachers during the learning process. This unit will help learners to develop an understanding of the personal qualities that are valued by employers.

## **Essential resources**

The main resources needed for this unit are items to move and handle and a large enough space, with sufficient headroom, in which to carry out the moving and handling. The resources to be moved and handled should clearly relate to the construction industry and should include bulky and unwieldy loads.

Learners should have access to some or all of the following lifting aids: shelf trolleys, sheet trolleys, sack trucks, lift trucks, pallet trucks, sheet hoists, chutes, roll cages and lifting hooks.

There must be access to adequate washing and first aid facilities, and space for the storage of PPE such as hard hats, high visibility jackets, gloves and safety boots.

## Learning outcomes, assessment criteria and unit amplification

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

| Learning outcomes |   | Assessment criteria |  | Unit amplification  |
|-------------------|---|---------------------|--|---|
| 1                 | Know about the regulations and guidance that apply to the safe moving and handling of resources | 1.1                 | Identify the regulations and guidance that apply to the safe moving and handling of resources, including the Manual Handling Operations Regulations 1992 | <ul style="list-style-type: none"> <li>□ <i>Regulations</i>: Manual Handling Operations Regulations 1992</li> <li>□ <i>Guidance</i>: to follow appropriate systems of work laid down for their own safety; to make proper use of equipment provided for their own safety; to cooperate with tutors on health and safety matters; to inform tutors if they identify any hazardous handling activities; to take care to ensure that their activities do not put others at risk</li> </ul> |
| 2                 | Understand how unsafe manual handling techniques can cause injury to self and others            | 2.1                 | Explain how unsafe manual handling techniques can cause injuries to themselves and others  | <ul style="list-style-type: none"> <li>□ <i>Unsafe manual handling techniques</i>: e.g. exceeding maximum load, holding loads away from the body, twisting, bending, stooping, reaching upwards, jerking, lifting over long distances, repetitive handling, moving too quickly, lifting bulky and unwieldy loads</li> <li>□ <i>Injuries</i>: e.g. musculoskeletal disorders (MSDs), pain, discomfort, tenderness, swelling, impaired movement</li> </ul>                                |

| Learning outcomes |   | Assessment criteria |   | Unit amplification   |
|-------------------|---|---------------------|---|--|
| 3                 | Be able to work as part of a team when carrying out safe moving and handling of resources | 3.1                 | Perform safe moving and handling of resources as part of a team, without the use of lifting aids                        | <ul style="list-style-type: none"> <li>□ <i>Safe moving and handling of resources:</i> maximum load guidelines; use of appropriate PPE; safe lifting (alone, in pairs, using lifting aids)</li> <li>□ <i>Maximum load guidelines:</i> depend on many factors, e.g. gender (male or female), position (standing or sitting), height (shoulder, elbow, knuckle or mid lower leg), arms (extended or not extended), number carrying out lifting (alone or with partner)</li> <li>□ <i>PPE:</i> to protect head, body, hands, chest, arms, feet as appropriate</li> <li>□ <i>Lifting:</i> set feet apart; place leading leg forward; bend knees; get a firm grip; keep back straight; keep load close to body; keep shoulders level; avoid twisting; lift in stages</li> <li>□ <i>Lifting in pairs:</i> as above but maximum load two-thirds the sum of individual capabilities, lift in tandem, follow instructions</li> <li>□ <i>Using lifting aids:</i> e.g. shelf trolleys, sheet trolleys, sack trucks, lift trucks, pallet trucks, sheet hoists, chutes, roll cages, lifting hooks; alone and as part of a team</li> </ul> |
|                   |   | 3.2                 | Perform safe moving and handling as part of a team, with the use of lifting aids  |  |
| 4                 | Be able to work responsibly with others   | 4.1                 | Demonstrate team working skills by working responsibly and cooperatively when moving and handling resources with others | <ul style="list-style-type: none"> <li>□ <i>Behaviour:</i> e.g. responsibility, recognition of hazards to self and others, cooperation, clear communication with team when lifting</li> </ul>  |
| 5                 | Be able to seek and respond to guidance when working as part of a team                    | 5.1                 | Follow instructions when working with others  |  |
|                   |   | 5.2                 | Communicate appropriately with others   | <ul style="list-style-type: none"> <li>□ <i>Attitudes:</i> e.g. enthusiasm; approachability; communication skills, e.g. listening, questioning, speaking clearly; following instructions</li> </ul>  |

## Information for tutors

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### Delivery

This unit will give learners their first experience of using the skills and equipment associated with moving and handling resources and the knowledge required to underpin correct moving and handling techniques. Learners must be given opportunities to develop their knowledge and practical skills through supervised moving and handling of resources in the workshop, group teaching and demonstrations of the equipment, techniques and PPE involved.

This unit gives learners an opportunity to experience an important element of the work involved in practical construction tasks.

Mechanical lifting aids are very useful because they reduce the need for manual handling, but they can pose their own hazards. All types of lifting equipment, including lifting gear and lifting operations, must comply with the Lifting Operations and Lifting Equipment Regulations 1998, the Approved Code of Practice and the Provision of Work Equipment Regulations 1998. Lifting equipment covers cranes, lifts and hoists, and components such as chains, ropes, slings, hooks, shackles and eyebolts. Centres should consider the following checklist for lifting aids.

- All lifting equipment must be suitable for the intended activity. Consider the environment in which it will be used, the load to be lifted and the way in which it will be used.
- Lifting equipment must have adequate strength and stability, particularly if mobile.
- Operators must be trained in the safe use of lifting equipment, must have relevant experience and must be competent to operate lifting equipment safely. Particular attention must be paid to the maturity and judgement of young people.
- Ensure that a competent person thoroughly examines and inspects all lifting equipment on a regular basis. Keep copies of the reports of those examinations.
- Clearly mark machinery and accessories with their safe working load.
- Ensure a competent person plans and supervises all lifting operations to ensure that they are carried out safely.

Centres must assess the risks to learners before they start work. If learners are young, centres must take into account their inexperience, their lack of awareness of potential risks, their immaturity and unfamiliarity with the working environment. Consideration must also be taken of their age and the possibility of their not yet being fully developed physically. Centres must provide information to parents of school-age children about the risks and the control measures introduced. They must take account of the risk assessment in determining whether the young person should undertake certain work activities, including moving and handling resources.

The maximum load that can be lifted manually without the use of lifting aids depends on many factors, including gender (male or female), position (standing or sitting), height (shoulder, elbow, knuckle or mid lower leg) and arms (extended or not extended). Special considerations should be made for pregnant women and people with disabilities. Centres are encouraged to access L23 Manual Handling: Guidance on the Regulations and, in particular, regulation 4(3) and the guidance on individual capability (paragraph 177 onwards).

## Outline learning plan

The outline learning plan has been included in this unit as guidance.

| Topic and suggested assignments/activities   |
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| <p>Know about the regulations and guidance that apply to the safe moving and handling of resources.</p> <p>Identification by the tutor of the appropriate regulations and the importance of complying with these regulations. A presentation by an experienced construction operative on what constitutes the correct behaviour and approach.</p>  |
| <p>Understand how unsafe manual handling techniques can cause injury to self and others.</p> <p>DVD or video presentation of safe manual and handling techniques and of injuries caused by poor practice in moving and handling resources. Whole-class, tutor-led discussion of links between bad practice and the physical harm it can cause.</p>   |
| <p>Practise working as part of a team to move and handle resources.</p> <p>Practical demonstration of safe moving and handling techniques. The relevant techniques are best taught by tutor demonstration, followed by the learners practising the techniques. The tutor should monitor learners as they practise and provide guidance, advice, correction or praise as appropriate. The appropriate PPE must be made available, properly maintained and worn at all times.</p>  |
| <p>Be able to work as part of a team when carrying out safe moving and handling of resources.</p> <p>Assessment –Three hours to demonstrate knowledge of regulations and guidance, and an understanding of the potential physical consequences of non-compliance with the regulations. Six hours to demonstrate the use of safe working practices to move and handle resources.</p>  |
| <p>Be able to work responsibly with others.</p> <p>Discussion of the benefits of behaving in a communicative, cooperative and responsible manner towards both tutors and other learners. Small group exercise to identify possible hazards associated with moving and handling resources, followed by short presentations. This requires no formal allocation of time and should occur during both delivery and assessment.</p>  |
| <p>Be able to seek and respond to guidance when working as part of a team.</p> <p>Tutors should encourage learners to ask questions about their work. This could be prompted by tutors asking learners to explain the techniques they are using and the aids they are using to help them. Learners should be aware that their attitude, and the nature of their responses to any advice provided, will comprise part of the evidence required to achieve the unit. This requires no formal allocation of time and should occur during delivery and assessment.</p> |

## Assessment

The use of two assessment instruments is suggested to allow full coverage of the learning outcomes. The first assessment instrument would comprise 1.1 and 2.1. It should focus on the regulations and guidance that underpin the safe moving and handling of resources, the consequences of unsafe moving and handling and how compliance with regulations and guidance prevents the injuries that can be caused by the use of unsafe techniques. The second assessment instrument would comprise 3.1, 3.2 and 4.1 and should focus on the performance of safe moving techniques, both individually and as part of a team, both with and without the use of lifting aids. This should include an understanding of when lifting aids are useful and when not. 5.1 and 5.2 can be assessed over the whole period of assessment and will require no extra time.

For 1.1, learners must demonstrate that they know that there are regulations and guidance relating to the moving and handling of resources, and they should be able to name the main piece of legislation, the Manual Handling Operations Regulations 1992. They should be aware of the important aspects of the guidance, but there is no requirement for a detailed understanding, nor are learners required to quote specific sections from the legislation or the guidance.

For 2.1, learners must be able to name two examples of unsafe manual handling techniques and two possible consequences of the use of unsafe techniques. There is no requirement for the cause and effect to be linked, nor is there any requirement for an explanation of the mechanisms by which unsafe manual handling techniques can cause injuries.

For 3.1, learners must be able to use the correct techniques and PPE required to move and handle resources, both individually and as part of a team, but without recourse to lifting aids. There is no requirement for learners to handle every material and/or resource they could encounter on a typical building site, but those used must be specific to the construction industry and should include bulky and unwieldy loads. It is anticipated that learners at this level will need considerable guidance. Close supervision is required at all times to ensure that learners neither exceed the maximum allowed load nor use unsafe handling techniques.

For 3.2, learners must be able to use the correct techniques and PPE required to move and handle resources, both individually and as part of a team. There is no requirement for learners to handle every material and/or resource they could encounter on a typical building site, but those used must be specific to the construction industry and should include bulky and unwieldy loads. It is anticipated that learners at this level will need considerable guidance. It is essential that a competent person plans and supervises all lifting operations that use lifting aids, to ensure that they are carried out safely.

For 4.1, learners must work responsibly with others. This must include communicating clearly with each other when working as part of a team and responding correctly and promptly to all instructions from the tutor and other learners. Learners should be aware of any hazards associated with the moving and handling operations they are asked to perform, but they need not produce risk assessments or suggest control measures. The evidence could take the form of a witness statement.

For 5.1 and 5.2, learners must demonstrate responsibility by seeking and listening to guidance and clarification from tutors as and when appropriate, and by acting on the guidance received. They should communicate appropriately with both tutors and other learners at all times. The evidence could take the form of a witness statement.

## Suggested resources

### Books

Topliss S and Murray-Smith J – *BTEC Entry 3/Level 1 Construction Student Book* (Pearson, 2010) ISBN 9781846909207

*Manual Handling, Manual Handling Operations Regulations 1992* (as amended in 2002). *Guidance on Regulations L23* (3rd Edition, HSE Books, 2004) ISBN 071762823X

There are also a number of free information leaflets available to view and to print from the HSE website: [www.hse.gov.uk/pubns/manlinde.htm](http://www.hse.gov.uk/pubns/manlinde.htm)

*Aching arms (or RSI) in small businesses* INDG171 (rev 1)

*Are you making the best use of lifting and handling aids?* INDG398

*Getting to grips with manual handling: A short guide* INDG143 (rev 2)

*Manual handling assessment charts* INDG383

*Manual handling: Solutions you can handle* HSG115 (HSE Books, 1994) ISBN 0717606937

*Mark a parcel – save a back* INDG348

All the publications referred to above are available from HSE Books, PO Box 1999, Sudbury, Suffolk CO10 2WA.

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