



Handling Work Equipment

Handling work equipment is an activity that may occur among the everyday tasks of workers in the aggregates industry and although it may be common or repetitive, this may entail a risk for the safety and long-term health of workers.

In this tool box, the most common three types of risk factors when handling work equipment will be approached: lifting and carrying of loads, and team handling operations.



Why is it important to approach the issue of handling work equipment in the workplace?



Although it is common to handle work equipment, being part of the everyday tasks of workers, on some occasion, mismanagement can lead to injuries, accidents and (rarely) to fatalities, but also to damaging or destruction of materials. Additionally, over longer periods of time, faulty handling of work equipment, very often leads to Musculoskeletal Disorders, that are difficult to treat.



What do Employees have to do?

Firstly, it is very important for workers to identify high risk workplaces where the manual handling activities take place and to ensure their integrity.

Lifting or carrying operations – individually

Factors to be assessed:

- weight of the load and the frequency (or repetition rate) of the lifting/carrying operation;
- size and shape of the load and the grip that the worker can use to get hold of and control the load;
- posture during manual handling; capability of the individual.

Observe the work environment. Check the condition of the floor where the handling task is performed. For outdoor work the weather must be taken into account: rain/snow, extreme temperatures, visibility (fog, light intensity), intense wind.

For carrying operations, the distance should be assessed and if there are any obstacles on the route.

1

Upper arms vertical AND torso upright	Upper arms angled away from torso	Torso bent forward	Torso upright. Arms fully outstretched	Upper arms angled away from torso AND torso bent forward
Hands close to the low back	Hands at moderate distance from the low back		Hands far from the low back	

2

Upper arms vertical AND torso upright	Upper arms angled away from torso	Torso bent forward	Upper arms angled away from torso AND torso bent forward
Hands close to the low back	Hands at moderate distance from the low back		Hands far from the low back

Lifting or carrying operations – in team

Additional factors to be assessed:

- direction of movement together – sometimes this task is performed sideways by both workers and sometimes, more dangerously, one worker is moving backwards – to be avoided;
- communication and coordination before undertaking the task is essential.

3

Upper arms vertical AND torso upright	Upper arms angled away from torso OR torso bent forward	Upper arms angled away from torso AND torso bent forward
Hands close to the low back	Hands at moderate distance from the low back	Hands far from the low back

4

2 people < 35 kg 3 people < 55 kg 4 people < 75 kg	2 people 35–65 kg 3 people 55–95 kg 4 people 75–130 kg	2 people 65–85 kg 3 people 95–130 kg 4 people 130–170 kg	2 people > 85 kg 3 people > 130 kg 4 people > 170 kg
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EXAMPLES (Best practices, risk assessments etc.)

National Examples (non exhaustive list):

- **Mineral Products Association (MPA), United Kingdom:**

Developed the safequarry.com website which incorporates a collection of best practice examples:



<https://www.safequarry.com/Search.aspx?Search=manual+handling>.

Find out more

EU-OSHA

EU-OSHA is currently organizing a campaign on Musculoskeletal Disorders which are a common outcome of mismanagement of handling work equipment:

<https://osha.europa.eu/en/themes/musculoskeletal-disorders>



EU law

Framework Directive: 89/391/EEC Council Directive of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:01989L0391-20081211> (23 languages).

Directive: 89/654/EEC of 30 November 1989 of 30 November 1989 concerning the minimum safety and health requirements for the workplace (first individual directive within the meaning of Article 16 (1) of Directive 89/391/EEC) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31989L0654> (23 languages).

Directive: 89/655/EEC of 30 November 1989 concerning the minimum safety and health requirements for the use of work equipment by workers at work (second individual Directive within the meaning of Article 16 (1) of Directive 89/391/EEC) <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A31989L0655> (23 languages).

Directive: 89/656/EEC of 30 November 1989 on the minimum health and safety requirements for the use by workers of personal protective equipment at the workplace (third individual directive within the meaning of Article 16 (1) of Directive 89/391/EEC) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:01989L0656-20070627> (23 languages).



Directive: 90/269/EEC - manual handling of loads of 29 May 1990 on the minimum health and safety requirements for the manual handling of loads where there is a risk particularly of back injury to workers (fourth individual Directive within the meaning of Article 16 (1) of Directive 89/391/EEC): <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31990L0269> (23 languages).

Directive: 90/270/EEC of 29 May 1990 on the minimum safety and health requirements for work with display screen equipment (fifth individual Directive within the meaning of Article 16 (1) of Directive 89/391/EEC): <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31990L0270> (23 languages).

Directive: 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC: <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:32006L0042> (23 languages).

Directive: 2009/104/EC of the European Parliament and of the Council of 16 September 2009 concerning the minimum safety and health requirements for the use of work equipment by workers at work (second individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32009L0104> (23 languages).

Credits

Pictures 1, 2, 3 and 4, have been taken from the "Manual handling assessment charts (the MAC tool)", which is a document belonging to the Health and Safety Executive.