



17. Force - lifting: moving the object



What do you see or notice in terms of:

Note: For background information, see other side.

- the travel distance for the load?

- heights when grasping or putting down the load?

In conclusion, the current situation	is acceptable	needs improvement
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What *specific* improvements can be made?

Should we analyze the situation or the proposed solutions in more detail?	no	yes - more detail on other side
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Ergonomic design

We looked at ...	Why be concerned? (consequences)	Recommendations
Travel distance for the load	<p>The greater the distance:</p> <ul style="list-style-type: none"> • the greater the muscle fatigue • the greater the risk of falling 	<ul style="list-style-type: none"> • Carry the load with both hands • Limit the carry distance to 2 m (6') • Reduce the weight of loads and daily tonnage if distance is between 2 m and 10 m (6' to 30') • Use mechanized transport equipment when distance is more than 10 m (30') • Use sliding tables, conveyors belts, ball casters • Eliminate changes in heights between work surfaces
Heights when grasping or putting down the load	<p>If the object is too high up:</p> <ul style="list-style-type: none"> • leaning backward with arms raised • back and shoulder problems 	<ul style="list-style-type: none"> • Grasping and dropping points should be on the same vertical height as much as possible, to reduce twisting • Move the start and finish points away from each other to force workers to turn their whole body or take a step, rather than twist at the waist • If the load dimensions are always the same, provide support ideally at 750 mm (30") but between 60 and 90 cm (24" and 36") • If load dimensions vary, provide adjustable height supports (e.g. lift table) • Completely avoid positions at ground level or above shoulder level • Provide mechanized lifting equipment for objects placed above shoulder level • Arrange storage areas taking into account the following: <ul style="list-style-type: none"> - height of workers - usually between 80 & 175 cm (31.5" and 69") - weight of objects: <ul style="list-style-type: none"> > loads over 10 kg (22 lbs) at hip level > lighter loads between knees & shoulder level - reaching distance: place frequently-lifted objects closer to the worker

Translated and adapted from SOBANE materials, available at www.sobane.be/fr/tms_obs.html

