



Department of Consumer
and Employment Protection
Government of Western Australia

Resources Safety 

Mines Safety Bulletin No. 77

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Subject: Use of telehandlers

Background

A recent serious incident in New South Wales involving a telehandler has raised concerns over the use of these machines to lift freely suspended loads. Research by Work Cover NSW indicates:

- some telehandlers not designed to lift freely suspended loads are being used for this purpose; and
- telehandler stability is affected when operating on sloping ground with a freely suspended load.

This safety bulletin is based on the Work Cover NSW Safety Alert published in August 2005 and WorkSafe VIC Alert published in March 2006.

Expectations

Owners of telehandlers and those responsible for their use should have all applicable supplier's information for the machine, including the maximum operational slope and other limitations. They should ensure their machines have been designed to accommodate the required attachments, and are suitable for the tasks they are to perform and the location they are intended to be used. Where intended to lift freely suspended loads, written confirmation that the machine complies with Australian Standard AS 1418.5 or an equivalent standard should be readily available on site.

Purpose

Employers and operators who use or intend to use telescopic handlers ('telehandlers') must be aware:

- that some telehandlers are not designed to lift freely suspended loads; and
- a location where the ground is rough, uneven or sloping can significantly affect the machine's stability when operating as a mobile crane.

Note: Telehandlers are also known as multi-purpose handlers, cranes, tool carriers and telescopic forklifts, and by a variety of proprietary names.

Resources Safety's position

Telehandlers used to lift freely suspended loads by a jib attachment or other means **must comply with Australian Standard AS 1418.5**. If an inadequately designed telehandler is observed being used as a mobile crane, or is likely to be so used, Resources Safety inspectors will take appropriate compliance action.

Technical information

A telehandler is a versatile type of mobile lifting plant incorporating a telescopic boom fitted with a lifting attachment. The usual means of lifting is by forks, but telehandlers can be fitted with a variety of attachments for different types of loads. The range of attachments that can be used depends upon the design of the particular machine, and these often include a jib for lifting freely suspended loads.

Typically, telehandlers are used to travel with their load (pick-and-carry). When the load is supported on forks, it should be lowered as close to the ground as possible and the boom retracted during travel. However, when the load is freely suspended, it needs to be elevated to prevent it snagging on the ground or other obstacles. This, coupled with the fact that the load can swing and exert additional dynamic forces on the machine, may adversely affect the machine's stability. When operating on sloping ground, the potential for instability is increased as the load swings further out from the lifting point.

Stability ratio is critical

A telehandler designed and intended to be used as a mobile crane, to pick-and-carry a freely suspended load, must have a stability ratio not greater than 66% in this mode. This is the maximum allowable stability ratio specified in Australian Standard AS 1418.5, *Cranes, hoists and winches Part 5: Mobile cranes*.

Suppliers of telehandlers designed and tested in compliance with Australian Standard AS 1418.5 should be able to readily produce written confirmation of compliance. Such models are suitable as pick-and-carry mobile cranes.

Martin Knee
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