

Safe Ground Conditions - Mobile Elevated Work Platforms

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All mobile elevating work platforms (MEWPs) rely on ground conditions for their stability. This applies equally to those requiring the use of jacks or outriggers and those operating on wheels. Ground conditions not suitable for certain sizes of equipment have been known to settle when subjected to MEWP loads. This results in equipment becoming unstable and, in some cases, overturning, jeopardizing the safety of the operator.

It is important to always conduct an assessment of ground conditions before traveling, using or setting up an MEWP on any surface. A ground strength assessment can vary from a visual inspection of the ground surface to a full geotechnical survey. In the case of MEWPs, a visual inspection is often adequate. Outrigger loads are relatively low compared with other machines, such as mobile cranes. However, it is essential that the assessment is made by someone with adequate knowledge and experience to know when further expert advice and assessments are required.

Some typical ground condition hazards are:

- **Uncompacted Fill** - Soil or other fill material might be piled along the line of a backfilled trench without being compacted. Cracking of the ground along the line of the trench is an indication of uncompacted fill.
- **Proximity to Excavations** - MEWPs should not be positioned near the edge of trenches and other excavations, as these are likely to collapse without warning. If the machine needs to be used close to the edge of a slope or excavation with the outriggers or wheels in the "danger area," an engineering assessment must be made by a competent geotechnical engineer before setting up and operating the MEWP.
- **Floors, Cellars and Basements** - Many floors, cellars and basements are incapable of bearing the weight of an MEWP and could collapse without warning. The strength of floors and location of cellars and basements must be taken into account when using MEWPs.
- **Paved Areas** - Paved areas can look deceptively strong but may have been laid on weak ground. Footpaths should be considered to be suspect, as there could be weaker material or shallow services under the surface. If a road is regularly used by heavy commercial vehicles and does not show any signs of distress, it is of less concern than a lightly-trafficked road.
- **Underground Services** - Sewers, drains, manholes, gas and water mains and other underground services may be damaged by the weight of an MEWP, or could even collapse and cause the MEWP to become unstable or overturn.
- **Weather Conditions** - Heavy or prolonged rain can alter ground conditions and cause sinking of outriggers or wheels. If it is suspected that the ground supporting an MEWP is getting softer, regular checks should be made on how level the machine is, and the appropriate adjustments made to outriggers, packing mats, etc. Regular checks should be carried out when frozen ground is thawing, since it can appear to be much firmer than it actually is.

Safety begins with ground conditions. Every effort must be made to ensure safety.

Safety – It's Up to You



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Company Name
Project #/Name

Date

Meeting Location

Person Conducting Meeting

Items Discussed

Problem Areas or Concerns

Attendees

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Comments
