



Elevating work platform structural failure

Background

In November 2020, two workers were in the process of tree lopping in a truck-mounted elevating work platform (EWP) when the boom-type EWP suffered a major structural failure, with the metal support separating from the fibreglass joint while in operation. The resulting collapse of the EWP resulted in serious injury to one worker.

WorkSafe is liaising with regulators in other jurisdictions on this issue due to the national safety implications of the manufacture and supply of plant of this type.

Possible contributing factors in incidents of this type

- Use of a fibreglass insulated boom-type EWP where the join between the metal support structure and the fibreglass joint is connected with glue.
- Annual inspections failing to identify potential signs of impending structural failure of fibreglass sections.
- Potential design or manufacturing defects in the glued connection between the metal support structure and fibreglass joint section.



EWP boom failure between the metal support structure and fibreglass joint section.

Managing hazards and risks

1. Ensure all EWPs are inspected by a competent person in accordance with both the manufacturer's instructions and, in areas not covered explicitly by those instructions, in accordance with AS/NZS 2550.10-2006.
2. Competent persons inspecting boom-type EWPs made out of composites must ensure that the scope of the inspection specifically addresses the signs and failure points associated with this kind of material. Such inspections could include visual inspection for hairline cracks and tap testing to determine potential bonding failures.

3. Owners of boom-type EWPs made from composite materials that are unsure of the scope of previous annual and major inspections should have such EWPs inspected by a competent person as soon as is practicable.
4. Designers, manufacturers and importers of these items of plant are obliged to, as far as practicable, ensure that adequate information in respect of any dangers associated with the plant is provided when the plant is supplied and thereafter whenever requested.

Further information

Standards Australia

- AS 2550.1-2002 Cranes, hoists and winches – Safe use: General requirements
- AS/NZS 2550.10-2006 Cranes, hoists and winches – Safe use: Mobile elevating work platforms

The above information is provided based upon WorkSafe's preliminary investigation and further investigation is ongoing.