

Safety Guide 4: *Use of Mobile Cranes in Tree Work*

1.0 Introduction

- 1.1 This leaflet provides an overview of safety guidance for anyone who is required to use mobile cranes to carry out tree work. The guidance is summarised from the Technical Guide on the subject (TG4): *Use of Mobile Cranes in Tree Work*.

It contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

It is assumed that if you are applying the principles and guidance laid out here, then the decision that it is necessary to use a crane has already been made.

For guidance on making that decision, reference should be made to the *Industry Code of Practice for Arboriculture: Tree Work at Height* (ICoP) and TG4.

- 1.2 Everyone using mobile cranes for tree work operations can use this leaflet as outline safety guidance to check that operators are following industry guidance.
- 1.3 This leaflet is not a substitute for adequate training.

- 1.4 This leaflet is not a substitute for the full Technical Guide.

- 1.5 In accordance with the ICoP, the key principles of tree work at height must be adopted when using this leaflet.

It is essential that:

- a. all work at height is properly planned, organised, supervised and managed;
- b. lifting and lowering systems are properly designed, including the compatibility and correct configuration of components within each system;
- c. any equipment used is suitable for the task and subject to periodic inspection and examination;
- d. maintenance of equipment is carried out to ensure all equipment remains safe for use; *and*
- e. everyone engaged in the use of cranes for tree work operations has the appropriate training and experience to be proficient in tasks they are required to undertake.

- 1.6 For further guidance you should consult Technical Guide 4: *Use of Mobile Cranes in Tree Work*, and undertake appropriate training.

2.0 Preparation

Ref.	Checklist	Yes	No	N/A
2.a	Has the lift plan been prepared by a qualified appointed person who has experience of arboricultural lifting operations using a crane?			
2.b	Does the lifting team include the necessary personnel?			
2.c	Are all members of the lifting team suitably qualified and experienced?			
2.d	Do all members of the lifting team fully understand their role on site?			
2.e	Can everyone on site maintain 'situational awareness': are they fit and well, physically and mentally?			
2.f	Is everyone on site aware of any individual operator's limitations?			
2.g	Does anyone on site require reduced exposure duration to, or increased protection from, any particular hazard which may affect their health? If so, has this been implemented?			

3.0 Planning

Ref.	Checklist	Yes	No	N/A
3.a	In the circumstances, can your selected arrangement for crane hire or contract lift be fully justified?			
3.b	Has an appointed person specified the most appropriate crane?			
3.c	Has risk control been planned by an appointed person?			
3.d	Has a visual tree condition assessment been undertaken?			
3.e	Have site considerations such as weather conditions, wildlife, biosecurity and tree protection been assessed and actioned?			

4.0 Management

Ref.	Checklist	Yes	No	N/A
4.a	Do all members of the lifting team understand the emergency plan?			
4.b	Have all members of the lifting team signed the risk assessment and the lift plan to confirm their understanding?			

5.0 Selection of Equipment

Ref.	Checklist	Yes	No	N/A
5.a	Has the appointed person specified an appropriate crane?			
5.b	Are the crane and all lifting equipment within the required test period?			
5.c	Have suitable slings been selected?			
5.d	Does the crane have a safety hook with a latch?			
5.e	Is the equipment provided suitable for the task, has it been thoroughly examined (where applicable), and have pre-use checks been completed?			
5.f	Does everyone on site have the correct PPE and is it in good condition?			
5.g	Has the climber received training in climbing equipment inspection, maintenance and record-keeping?			
5.h	Do operators understand manufacturer’s recommendations for product lifespan, maintenance, storage and use?			
5.i	Are operators keeping adequate records of issue, inspection, withdrawal and disposal?			
5.j	Have operators completed a visual and tactile pre-use inspection?			

6.0 Site Preparation

Ref.	Checklist	Yes	No	N/A
6.a	Has the crane supervisor ensured that the site has been set out in accordance with the lift plan?			
6.b	Has the crane been placed and rigged as set out in the lift plan?			
6.c	Have communication systems been planned, agreed and tested?			

7.0 Accessing the Crown of the Tree

Ref.	Checklist	Yes	No	N/A
7.a	Have crown access methods been agreed and can they be justified in line with the hierarchy for work at height in the ICoP?			
7.b	If a MEWP is to be used, has its position been planned in relation to the proximity of the crane, drop zones and landing areas?			
7.c	If the crane is to be used to lift personnel, has the SWL been derated by 50%?			
Planning for aerial rescue				
7.d	Have you planned for aerial rescue?			
7.e	Do you have everything you need and is it to hand?			
7.f	Has the nominated rescuer(s) received training in rescue techniques and the equipment to be used?			
7.g	Does everyone understand their role and responsibility in the event of an aerial rescue?			
7.h	Can the casualty be removed from the tree safely without risk of injury to the rescuer?			
7.i	Are the tree and the anchors available still safe to climb?			
7.j	Have the nominated rescuer and the operatives involved practised rescue techniques at regular intervals to maintain skills?			

8.0 Branch Removal

Ref.	Checklist	Yes	No	N/A
8.a	Is a system in place to estimate the weight of the load to be lifted, which will ensure that the load never exceeds the maximum as specified by the appointed person in the lift plan?			
8.b	Has the lifting team agreed the system for connecting the crane to the tree sections to be removed using the chosen slings?			
8.c	Does the lifting team understand the effect on the SWL as a result of the angle between multiple slings and the type of attachment to the branch (choker, lark's foot, timber hitch etc.)?			
8.d	Has the sequence of branch removal been agreed?			
8.e	Does the climbing arborist understand the cutting techniques to be used?			
8.f	Has a landing area been agreed and prepared, with bearers if necessary?			
8.g	Has the use of tag lines been discussed and a plan agreed?			

Notes

Date of observations:			
Location:			
Observer's name:		Signature:	
Who is being observed?			
Comments:			
Actions:			
Reference:			
Actions completed date:			
Confirmed by:		Signature:	

Further information

This safety guide is one of a series produced by the **Arboricultural Association (AA)**. There is also a wide range of additional safety and technical information in relation to arboriculture on the AA website: www.trees.org.uk
 For safety information in relation to forestry visit the **Forest Industry Safety Accord (FISA)** website: www.ukfisa.com
 For more general information about health and safety related to tree work, visit the **Health and Safety Executive** website: www.hse.gov.uk/treework/index.htm

Further reading

Industry Code of Practice for Arboriculture – Tree work at height (second edition, May 2020)
 Technical Guide 1: *Tree Climbing and Aerial Rescue*
 Technical Guide 2: *Use of Tools in the Tree*
 Technical Guide 3: *Rigging and Dismantling*
 Technical Guide 4: *Use of Mobile Cranes in Tree Work*
 Technical Guide 5: *Use of Mobile Elevating Work Platforms in Tree Work*
 FISA 802: *Emergency Planning*
 FISA 805: *Training and Certification*