



## Federal Safety Commissioner's Hazard 2020 Online Educative Forum – Articulated Mobile Crane Additional Q&A

The following questions were asked by attendees at the FSC Online Educative Forum on Articulated Mobile Cranes on Thursday 15 July. The questions were not answered due to time constraints on the day.

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**Q: *How do you tell if the side slope of the site is more than 5 degrees?***

A: The side slope should be measured along the chosen path, and not just at one point. The articulated crane will have a side slope indicator (gauge). Observing the gauge while driving unloaded along the chosen path will show what angle the slope is. This method of measuring the slope can help dictate the most appropriate, safe and efficient path. While testing the slope, the articulated crane should be driven with boom horizontal, fully retracted and hook two blocked (ie: transport configuration).

**Q: *Is there any insight on how to manage calculations on sites where the site has been built on concrete foundations that already support existing structures many hundreds of tonnes in weight?***

A: The maximum loads should be calculated based on the crane's point load distributed through tyres or mats into concrete structure. The load limits of the concrete structure cannot be exceeded. This is a case-by-case assessment which must be done by qualified project engineers based on the individual site requirements.

**Q: *How is wind calculated into load shift/sway if it compounds the issue of side slope?***

A: All crane load-charts have a built-in wind speed rating. The wind speed limitations are included in the side-slope chart. The load's shape, mass and sail area will contribute to the amount of load shift / sway. Additional assessments and calculations will be required on a case-by-case basis in line with company WHSMS risk assessment processes.



**Q: *In what circumstances are lift plans required for articulated cranes?***

A: This should be dictated in your company's WHSMS. Articulated cranes will fall under the same risk assessment and management requirements of any lift undertaken onsite.

**Q: *If a head contractor subcontracts crane work, what does the head contractor need to do to meet the Scheme criterion H16.6?***

*H16.6: The system ensures there is an inspection and maintenance program for rigging and lifting equipment.*

A: The Head Contractor's WHS management system will need to have documented requirements (ie: in a Plant and Equipment procedure, or as part of its Project WHS Plan) supported by tools/templates (ie: Project Risk Register, Plant Inspection Checklist, Crane Lift Permit or similar) for how it expects the crane subcontractors it uses to manage inspections of the lifting and rigging equipment that is brought onto site.

The process should at least identify the various types of lifting/rigging equipment and the different frequencies of inspection/testing required by the relevant Australian Standard for that item of lifting/rigging gear (ie **AS4497.1** for synthetic fibre round slings, **AS3775** Chain slings for lifting purposes etc) and state how items of such equipment brought to site by subcontractors are to be managed by the subcontractor and checked by the Head Contractor.

An example of this could be the need to be on a register and fitted with an appropriate tag and checked as part of the project incoming plant inspection process or part of the pre-lift process (for instance if the Head Contractor has a permit to work system that controls crane lifting). The need for pre-use/pre-lift visual inspection by the crane's dogman should also be included in its system.

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Information on the Hazard 2020 Safety Campaign, and videos from the session and previous webinars are available at [www.fsc.gov.au/hazard-2020](http://www.fsc.gov.au/hazard-2020). If you have additional questions please email [ofsc@jobs.gov.au](mailto:ofsc@jobs.gov.au).