



# Cranes & Lifting

**Intent:** To eliminate or minimise the risks of fatalities, injuries and events arising from the use of cranes and lifting equipment.

## ENGINEERED SAFETY IN PRACTICE (EXAMPLES):

- Reduce lifts through prefabrication and modular design
- Engineer lifting points into components with certified load ratings, incorporate balance considerations into design
- Design crane locations and lift paths early in the project
- Avoid complex or multi-crane lifts through sequencing

## FSR Controls

1. Appoint a Crane Appointed Person to manage lifting operations.
2. Appoint a Crane Supervisor to oversee lifting activities on site.
3. A specific lift plan or analysis is required for every lift, except where a pre-approved analysis is listed in the Schedule of Common Lifts.
4. *Intermediate and Complex Lifts* must have an approved Lift Study.
5. Only set up a crane in locations that have a valid Permit to Load.
6. Where multiple crane operations interface, the Crane Supervisor must coordinate lifting sequences and interfaces.
7. Inspect lifting and rigging gear before each use for signs of damage, confirm it is certified, fit for use and clearly tagged in line with the *RGBY system*.
8. Soft Slings may only be used following approval by an *Operational General Manager* using the Soft Sling Authorisation Tool.
9. Articulating or non-slewing cranes (ANSC) may only be used following approval by an *Operational General Manager* using the ANSC Authorisation Tool.
10. All *crane crew* must be trained and hold the relevant high-risk work licences before commencing lifting activities.
11. A tower crane anti-collision system is operational where there is radius overlap.
12. Earthmoving equipment used as a crane must be assessed and approved for lifting through the plant mobilisation process.
13. When earthmoving equipment is used as a crane, do not use for *precision lifting* and only operate in accordance with load charts.
14. Prohibit work beneath suspended loads.
15. Cranes operating near powerlines must adhere to asset owner and Safe Approach Distance (SAD) requirements, have slew / height limiters and a trained electrical spotter.
16. A restricted work zone is established for all lifting activities using barricades and clear signage.
17. Before any pick-and-carry movement, confirm the load is within the machine's rated capacity and configuration, with the load tied back to a rated point, or where not possible, controlled by a tagline.
18. Verify travel paths for pick-and-carry movements are level, compact, and free of personnel, obstacles, and overhead hazards before moving the load.



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## DEFINITIONS

**Precision Lifting:** A lift requiring deliberate, incremental movements ("inching") and fine positioning of components within tight tolerances, commonly involving workers in close proximity to the load to guide or align componentry.

**Intermediate Lift:** Where the load to be lifted is of established weight and there are hazards, to be considered, either within the working area of the crane, or on the access route to the working area, but no multiple-crane lifting is involved.

- Pick and carry duties
- Oversailing other cranes or building
- The presence of services above or below ground
- Interface with public transport or public areas, etc.
- Blind lifts.

Intermediate lifts will require additional local controls to address any other hazards identified in the Risk Assessment which may not be related directly to the type of load itself.

**Complex Lift:** Complex lifts are where lifting persons, or the lifting operation requires more than one crane to lift the load, or use load enhancement attachments (e.g. Superlift), or the lift is to take place at hazardous or critical locations, demolition/dismantling, or there are complex shapes of unknown weight or an undefined centre of gravity. Some of these criteria will require a de-rating of the crane.

All complex lifts require risk assessments and method statements, and the approval of the Crane Appointed Person. It is strongly recommended that the Appointed Person is also on-site at the time of the complex lift.

Complex lifts must also be individually supervised by an experienced Crane Supervisor.

Note that while lifts referred to as 'common lifts' could be basic, intermediate or complex, the 'safe system of work' must always be commensurate with the complexity of the lift.

**RGBY System:** a color-coding system for equipment inspections with colours (Red, Green, Blue, Yellow) corresponding to quarterly checks.

**Crane crew:** all crane operators, Crane Supervisors, riggers and dogmen associated with the lifting operations.

**Operational General Manager:** for the purposes of this FSR, Operational General Manager should be taken to include the most senior leader of Specialist Business Units.

