



CICA – Vic / Tas Branch Crane Safety Bulletin #338 June 2024



Greetings all. Today's Bulletin is about balancing a load between two cranes. This is a complex and delicate task that requires meticulous planning and coordination.

It's not as straightforward as using a single crane and comes with its own set of challenges.

Every assessment of the CICA Lift Supervisor Course has seen people struggle with understanding the dynamics between the cranes and the load; and how to carefully manage each step of the operation.

Here are the important considerations to keep in mind when performing a dual lift.

Key Considerations for Dual Lifts

1. Load Distribution

Properly distributing the load between the two cranes is crucial. The load should be divided in a way that each crane handles a portion of the weight that is within its safe lifting capacity. This requires precise calculations and often a thorough understanding of the load's centre of gravity.

2. Crane Selection and Capacity

Choose cranes that are appropriately rated for their share of the load.

Each crane should be capable of lifting its share of the load with some margin for safety.

It's essential to consider both static and dynamic loads, as well as any additional stresses that might occur during the lift.

3. Coordination

Both cranes need to move together like a well-rehearsed dance duo.

If one crane moves faster or slower, loads can transfer between the cranes unexpectedly. Use the rated capacity indicator to monitor the load share and have clear communication between the intermediate rigger and crane operators.

Both cranes need to move in unison to prevent uneven loading, which can lead to dangerous shifts in the load or even tipping of one or both cranes.

4. Communicate the Plan

Two crane lifts require a sequence of motions between the cranes. Clear and constant

communication between the crane operators and intermediate rigger.

Everyone involved must understand the lift plan, the signals used, and the steps of the operation. Using radios or other reliable communication devices to maintain coordination.

5. Lift Planning

Detailed lift planning is essential. This includes creating a comprehensive lift plan that outlines the load's weight, dimensions, the centre of gravity, lift points, and the path of movement.

The plan should also include contingency procedures for potential issues that may arise during the lift.

6. Rigging

The rigging setup can make or break your lift.

It must be carefully designed to evenly support the load while distributing the weight of the load between the cranes.

This involves selecting the right rigging equipment, such as slings, spreader bars, and shackles, and ensuring they are correctly positioned and secured.

7. Ground Conditions

Assess the ground conditions where the cranes will operate. Both cranes must be on firm, level ground to prevent any imbalance during the lift.

Soft or uneven ground can lead to instability, which is especially risky when coordinating two cranes.

8. Environmental Factors

Consider environmental factors such as wind, rain, and temperature, which can all affect the lift.

Wind can cause the load to sway, increasing the difficulty of keeping the load balanced.

Operations should be postponed if conditions are not conducive to a safe lift.

9. Safety Protocols

Adhering to strict safety protocols is non-negotiable. This includes regular inspection of the cranes and rigging equipment, maintaining the exclusion zone and ensuring that all personnel are wearing appropriate personal protective equipment (PPE), and having emergency procedures in place.

10. Training and Competence



CICA – Vic / Tas Branch Crane Safety Bulletin #338 June 2024



Ensure everyone involved knows what they're doing. Crane operators must be experienced with dual lifts, and all team members should understand the specific challenges and safety measures involved.

Practical Steps for a Successful Dual Lift

1. **Pre-Lift Meeting:** Conduct a pre-lift meeting with all team members to review the lift plan, roles, and responsibilities.
2. **Trial Run:** If possible, perform a trial run without the load to practice coordination, confirm clearances and communication.
3. **Load Testing:** Test the rigging and cranes with a load that is lighter than the actual lift to ensure everything is functioning correctly.
4. **Constant Monitoring:** During the lift, continuously monitor the load and crane movements, making adjustments as needed to maintain balance.
5. **Post-Lift Review:** After the lift, conduct a review to identify any issues and areas for improvement for future dual lifts.

Useful Resources

[The CICA Lift Supervisor Course](#) is a comprehensive course for Lift Supervisors.

[ICSA Guidance Note – Lifting a Load with Several Mobile Cranes](#)

Conclusion

Lifting a load with two cranes is definitely more complicated than using just one, but with careful planning and good communication, you can make it work smoothly.

Pay attention to load distribution, crane capacity, synchronisation, and safety protocols.

Detailed planning and skilled operators are key to a successful lift.

To become a CICA Member, click [here](#).

Stay Safe - CICA