



# Knuckle-Boom Crane Fatality

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## INCIDENT

The operator of a cab-mounted knuckle boom crane was killed when a load of particle board detached from the slings and struck him.

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## CIRCUMSTANCES

The crane operator, who worked for a building supply merchant, arrived at a building site with a delivery of particle board flooring. There were ten sheets, together weighing nearly a tonne.

He placed two 6 metre-long web slings at opposite ends of the load using the “choker” method, and began hoisting and slewing the load to the second floor of a home unit under construction.

When the sheets were about 2.7 metres above ground, the web sling nearest the cab slid forward and the load cannoned forward, slammed into the top rear of the cab, then flipped and struck the operator, killing him instantly.

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## INVESTIGATION

The operator was an experienced worker, and had set the vehicle up correctly. However, he was operating the crane on the side nearest the load, and had no chance of escape when the load fell. Had he operated the crane from the other side of the truck, he would have survived.

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## DEPARTMENT OF LABOUR ADVICE

It is the Department’s advice that:

- If the crane can be operated from both sides of the vehicle, always have the vehicle between the operator and load being lifted.
- The vehicle should be positioned in order to get maximum visibility during unloading. If the operator cannot see the load properly, another competent person should be available to guide the operator.
- Lifting gear (web slings) must be used at an angle which will prevent the load sliding. The angle should be vertical, or as near-vertical as possible.
- Using a lifting beam is recommended for greater efficiency and safety.
- The crane should not be operated unless the operator is knowledgeable about the correct methods of securing loads. The operator needs to know:
  - How to ascertain the weight of the load to be lifted
  - The safe working loads of all slings, strops and chains used
  - How to check them for wear and damage.



For further information on safe rigging procedures, view the Approved Code of Practice for Load-Lifting Rigging at

[www.osh.dol.govt.nz/order/catalogue/134.shtml](http://www.osh.dol.govt.nz/order/catalogue/134.shtml).

*Note: This material has been prepared using the best information available to the Department of Labour at the time of publication. Information may change over time and it may be necessary for you to obtain an update. This material is also only intended to provide general advice and does not constitute legal advice. You should make your own judgement about action you may need to take to ensure you have complied with your workplace health and safety obligations under the law.*

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### **WHICH INDUSTRIES/SECTORS OR MATTERS WILL THIS INFORMATION BE RELEVANT TO?**

Construction industry