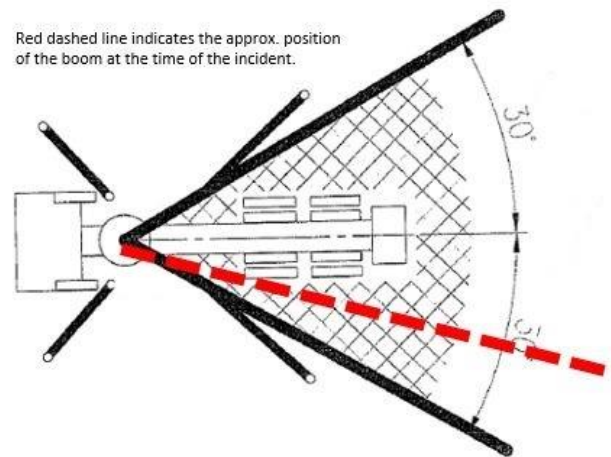


# Inherent instability of some concrete placing boom trucks

## DETAILS



**Photo 1** - Uncontrolled movement of concrete boom truck









**Drawing 1** – Manufacturers restricted working zone

A recent notifiable incident relating to the uncontrolled movement of a subcontracted concrete placing boom truck has highlighted that not all makes/models have a 360° working range capability. The pump/truck shown, was working at 4/5<sup>th</sup> boom capacity over the rear when it pivoted about its rear stabiliser legs raising the front legs and axle of the ground. Post incident survey *pick up* of stabiliser leg feet and hose discharge point, showed the position of the boom to be approx 13° off the centre of the pump’s feed hopper, shown in Drawing 1. There were no injuries resulting from this incident.




## DISCOVERIES

An investigation discovered:


-  The task was set up to enable a safe one-way route for concrete delivery trucks, slipping off the southbound carriage way of an adjacent road and entering site by its northern gate then leaving site via its southern gate.
-  Stabiliser legs were fully deployed and the boom truck was set up on a bitumen surface; ground conditions were not a causal factor.
-  The operator was licenced to operate the boom pump and was verified as competent by the subcontractor.
-  The manufacturer of the boom pump specifies a 60° working zone restriction (no go zone), for a horizontally deployed boom positioned towards the rear of the truck/pump, shown in Drawing 1.
-  The owner of the company and boom pump operator were not aware of the manufacturer’s restriction, and the task SWMS did not include details of the restriction.
-  The manufacturer’s restriction is mentioned once in the boom pump’s *Operation Manual*, on the 170<sup>th</sup> of 303 pages; and is shown in a different part of the manual to other pertinent safety information.

## KEY LEARNINGS

The key learnings to take away from this investigation are:








-  Not all concrete placing boom trucks have a 360° working range.
-  The importance of the due diligence process. Regarding the subcontractor’s responsibilities, although a key drawing was buried deep in the boom pump’s *Operation Manual* and shown only once, it was there and should have been discovered.
-  Manufacturer’s instructions (and restrictions) must be included in the information, instruction and training provided to an operator.

## IMMEDIATE ACTION REQUIRED

-  As previously instructed, with immediate effect, the boom of a concrete placing boom truck is not to be positioned past a rear stabiliser leg unless the capability of the pump/truck configuration has been verified.

Note: Fatal & Severe Risk Control Standard No.04 *Lifting Operations (incl Concrete Placing Booms)* is being amended to reflect this additional risk control.

**INFORMATION SHARING****Project and Quarry Managers:**

-  Set aside 10 minutes and arrange a toolbox training session to be attended by all team members.
-  Discuss the learnings highlighted in this document and encourage a conversation that enables the less experienced team members to ask questions and learn from the more experienced.
-  Emphasise the importance of verifying a boom trucks capability as part of the subcontractor onboarding process.
-  Reinforce the importance of due diligence regarding everything we do.
-  Reinforce the importance of workers being *line of fire* aware, you never know when mechanical failure or operator error may cause uncontrolled movement, so be line of fire aware at all times.  
Note: Explain the term *line of fire* for the benefit of the less experienced workers.
-  Record the toolbox talk on the attached sheet.
-  Display a copy of this learnings document where workers can read it.

**PMs/QMs/Site Managers:** Feel free to share a copy of this document with your client, client's rep etc.

**Issued by:** SEE Group's WHS Manager

**Disclaimer** - The information contained in this alert is based on knowledge and understanding at the time of writing.



INVESTIGATION LEARNINGS

**Inherent instability of some concrete placing boom trucks**

**RECORD OF COMMUNICATION**

**PROJECT/WORK AREA:**

**DATE:**

Name	Signature	Name	Signature