

Safety and health alert

08/07 Use of articulated non-slewing mobile cranes

Incident

There have been a number of incidents in Western Australia where articulated non-slewing mobile cranes have overturned. Typically, articulated non-slewing mobile cranes are used on construction sites and manufacturing yards to “pick and carry loads” i.e. in load shifting.

As required by regulation 4.54(12) of the *Occupational Safety and Health Regulations 1996*, twenty incidents involving such cranes were notified to WorkSafe in the past two and a half years. Investigations into the incidents have revealed that the cranes were operated outside the stability range under load conditions, thereby causing the cranes to overturn.

Factors to consider

- Cranes were operated outside the range of the load chart for pick and carry which is based on 66.6 per cent of tipping load.
- Safe operating instructions of designers and manufacturers were not followed.
- Articulated non-slewing mobile cranes are prone to overturning during “pick and carry” when oversteered.
- The cranes were not traversed on firm and level surfaces.

Recommendations

1. Cranes must not be operated outside the range of the load chart.
2. Persons operating cranes must be trained and strictly follow the safe operating instructions of designers and manufacturers. (*Operators must hold a CN crane licence if operating articulated non-slewing mobile cranes greater than 3 tonnes rated capacity.*)
3. Sufficient allowance must be made to reduce the safe working load (rated capacity) where the crane is required to be oversteered during “pick and carry”.
4. The travel route for “pick and carry” must be planned so the crane is traversed on firm and level surfaces.

Further information

Australian Standards for Mobile Cranes - AS1418.5 & AS2550.5.

Further information can be obtained from WorkSafe’s internet site www.worksafe.wa.gov.au or by contacting customer service on 1300 307 877 or email safety@docep.wa.gov.au

