

Log Transport Safety Council

Best practice guideline for Self loading log trucks

Summary

The following is required to operate self loading log trucks:

Design verification

This is required for rigs that entered service on or after 1 February 2010 and all machines with a rating over 15 tonne-metre. Contact the equipment supplier for the required documentation.

Current certificate of inspection.

("Co1" for cranes). Inspection must be undertaken by an IANZ accredited inspection body that is recognised by Worksafe NZ.

Training

Crane drivers must be competent or be training to achieve NZQA unit standards: 16617 or 6927

Introduction

The Health and Safety at Work Act 2015 (HSWA) shifts the focus from monitoring and recording health and safety incidents to proactively identifying and managing risks. This means that the PCBU / Owner of self loading logging trucks must be able to show that the design, maintenance and use of self loaders comply with the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations (1999) (PECPR).

The cranes and associated equipment must be:

1. designed and manufactured to a recognised standard
2. designed to be safe in use
3. verified to show that they are designed to the approved standards
4. manufactured to the verified design
5. inspected during manufacture and installation
6. periodically inspected in service by an accredited inspection body
7. used only when they have a current certificate of inspection
8. maintained in a safe condition.
9. withdrawn from service and controlled if found to be unsafe.

These requirements can be divided into three parts:

- Design and manufacture
- Maintenance
- Operation

Notification

The Health and Safety at Work Act 2015 and the PECPR Regulation both require a notification of an incident in situations where a Self-Loading log truck is involved:

Section 24 HSWA Meaning of notifiable incident

(1)

In this Act, unless the context otherwise requires, a notifiable incident means an unplanned or uncontrolled incident in relation to a workplace that exposes a worker or any other person to a serious risk to that person's health or safety arising from an immediate or imminent exposure to—

(g)

the collapse, overturning, failure, or malfunction of, or damage to, any plant that is required to be authorised for use in accordance with regulations;

(PECPR Regulations) 9 Accident notification

(1) Every controller must, so far as is reasonably practicable, take steps to ensure that, if an event of the kind described in subclause (2) occurs, the actions described in subclause (3) are carried out.

(2) The event is one that—

(a) occurs in a workplace; and

(b) causes—

(i) damage that affects the operational safety of equipment; or

(ii) damage to other property that may affect the safety of equipment; and

(c) might, in different circumstances, have caused a person to be seriously harmed.

(3) The actions are-

(a) notifying WorkSafe as soon as possible after the event, and

(b) Giving WorkSafe, within 7 days of the events occurrence, a detailed written report of an investigation of the circumstances of the event, carried out by an inspection body or by a Chartered Professional Engineer with a qualification in Mechanical Engineering, independent of the Controller.

Design and manufacture

Formal design verification is required to ensure the equipment has been designed to be fail safe and meets the relevant standards and regulations. Some of the required design features include:

- Outriggers and stabilisers that stabilise the unit while loading. These, where fitted, must be used unless the stability of the empty truck safely exceeds the maximum tipping moment the crane can apply.
- A safe and adequate means of getting on to and off the loading crane workstation
- Positive means provided to prevent a free fall of the boom in the event of a malfunction
- Each set of controls for the operation of the self-loading unit are to return to the off position when released, and to be clearly marked for function and direction.

The NZ Department of Labour accepted, in December 2009, that verifying the design of older units may be very difficult and costly. They exempted all truck loader type cranes, including self-loading log trucks, rated below 15 tonne-metres from this requirement if they were in service before 1 February 2010 (NZ Gazette. No 188, page 4517, dated 17 December 2009). These older units still need to have a valid certificate of inspection that shows that they have been assessed by an equipment inspector.

The suppliers of the equipment must take all practicable steps to ensure that the information establishing compliance with the Regulations, and all information necessary for the equipment's safe operation is passed on to the fleet operator. The suppliers must provide the:

- a. Manufacturer's rating chart
- b. Manufacturers declaration of conformity
- c. Manufacturer's recommended installation instructions
- d. Operating and maintenance instructions in English
- e. Lifting equipment certification, where appropriate
- f. A current, valid, LT400 certificate for the mounting of the crane to the truck chassis.

Maintenance

Equipment must be maintained as per the manufacturers recommendations (or better) taking use / age and environment into account

Certification

The crane and associated equipment must have a valid inspection certificate prior to going into service. The certificates are valid for 12 months.

The inspector who undertakes the inspections must work for, or be engaged by, an accredited and Recognised Inspection Body. A list of companies that undertake inspections is available at:

<http://www.business.govt.nz/worksafe/about/what-we-do/engineering-plant-equipment/inspection-bodies/nz-fabrication-services>.

Training and operation

As part of the supervision and training programme, operators need to be shown the hazards they will face on the job, and the controls in place to avoid being harmed by those hazards. Before starting any new operation, machine operators must be involved in identifying any significant hazards. Control measures must then be identified. There must be documented evidence onsite listing the hazards and controls, and showing that all operators have been familiarised with those hazards and controls.

Operators must identify potential hazards and must prepare themselves to be in the best position to deal with the hazard. For example; by communicating with all visitors/workers to the work site to ascertain their intentions. This is very important when visitors and auditors encroach into the operating area.

Crane operators must have an effective means of communication in case of an emergency.

The Approved Code of Practice for Safety and Health in Forest Operations requires that before any worker begins operating loading equipment, the employer must place them under the close (constant and one on one) supervision of a competent person. That person must continue to supervise the worker until the worker can operate safely and is not likely to harm themselves or anyone else. Extra attention must be given to the training and supervision of new or inexperienced operators. This is important because most serious injuries occur to operators with less than 6 months' experience.

All operators must be competent, or be under a documented training programme that includes NZQA Unit Standard 6927: Operate a vehicle mounted hydraulic loader in a commercial forestry environment.

"People credited with this unit standard are able to: demonstrate knowledge of vehicle mounted loaders and their capabilities; prepare for operating a vehicle mounted hydraulic loader; and operate a vehicle mounted hydraulic loader".

References

- *Competenz (2005), Best Practice Guidelines for Loading. Available at: Competenz.org.nz*
- *Health and Safety at Work Act 2015*
- *Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations (1999) (Often referred to as PECPR).*
- *ACOP Forest Operations*
- *NZ Gazette. No 188, page 4517, 17 December 2009*