



Lifting and suspended loads

1. INTENT

This standard identifies the controls required to manage the risk associated with personnel conducting mechanised lifts and lifting related activities.

2. APPLICATION

This Standard applies to all Perenti projects that use equipment such as cranes, hoists, lifting and rigging equipment.

3. REQUIREMENTS

3.1 PEOPLE

- Operators of mobile or fixed lifting equipment such as mobile cranes, integrated tool carriers, forklifts and overhead gantry cranes must be deemed competent in the safe operation of that equipment.
- A high-risk work license (minimum dogging) is required to supervise any lift requiring the following:
 - The calculation of safe angles, configurations and methods for the use of slings or chains;
 - Direction of an operator when that operator cannot maintain visual sight of the load throughout the lift.
- In jurisdictions outside Australia where high-risk work licenses do not exist, personnel are required to comply with the intent of this standard and undergo an equivalent level of training.

3.2 SYSTEMS AND PROCEDURES

- An operator must not leave the controls of any mobile or fixed lifting device while a load is suspended.
- Damaged or defective lifting equipment or implements must not be used. Defective equipment must be removed from service, tagged and quarantined.
- Cranes shall not lift above 85 per cent of the rated capacity of the crane at any time or radius.
Note: This requirement does not apply to overhead travelling cranes, portal cranes or tower cranes.
- Conducting lifts involving multiple cranes, personnel in a work cage, a crane working over 75% of its rated capacity, or the load requires lifting over live electrical facilities or occupied buildings are deemed critical lifts and must be supported by risk assessment and a dedicated lift plan.
- The crane load indicator must be assessed for accuracy with a test weight before undertaking any critical lifts.
- Personnel must visually inspect each item of lifting equipment prior to each use to ensure it is fit for use.
- Personnel must never work or travel or be otherwise positioned under a suspended load.

- Cranes must not be operated until ground conditions have been assessed as adequate to support the crane.
- When conducting pick and carry lifts the entire route of travel must be assessed for hazards prior to the lift commencing.
- Working under a charge machine boom, shotcrete machine boom or underground drill boom is permitted if the boom energy source has been isolated, as the inherent design of these machines lock movement when unpowered.
- A vehicle hoist, charge machine boom, shotcrete machine boom or underground drill boom must be supported by stands before commencing any work on the lifting structure or mechanism.
- Working under a boom or hydraulically suspended load on any other machine (than specifically listed in the previous two dot points) is not permitted unless support stands are used.
- Where equipment has designated lifting points fitted they must be used as the attachment point for lifting operations.
- Where equipment consists of several elements mounted on a base frame (e.g. a mono pump set) the base frame must be the point of attachment for lifting operations.
- When lifting a steel section, pipe or similar load, two points of attachment must be used with the chain or slings wrapped to lock the location while under load.
- Tag lines must be attached before lifting any loads that require steadying or guidance while suspended (i.e. suspended loads must not be manipulated by hand when the load is suspended by more than 300mm).
- Manufacturer's operating manuals for mobile lifting equipment and vehicle hoists must be made available and load charts attached to the machine or plant.
- A delineated, preferably hard barrier exclusion zone must be established for any lift to restrict access to persons not involved in the lift.
- Lifting operations with fork tines must only be conducted in compliance with the integrated tool carrier and forklift procedures.
- Projects must have a system to ensure lifting and towing equipment is easily distinguishable and kept segregated.
- Lifting equipment must not be used for towing operations. If lifting equipment has been used for towing it must be destroyed.
- Lifting of mesh or submersible pumps by jumbo booms must be in accordance with the jumbo operating procedures.
- Loads must not be attached and carried external to an elevated work platform unless attached to an engineered lifting point designed for that purpose.
- A site permit may be required when working near overhead powerlines.



Lifting and suspended loads

3.3 PLANT AND EQUIPMENT

- Only certified lifting equipment is to be used for all lifting and suspension of loads.
- Cranes must be fitted with a physical locking system that disables and isolates its free-fall capacity. Fork attachments must have lugs in place to prevent uncontrolled sideways movement of the tines.
- Cranes and lifting equipment must not be operated with an inoperable or defective safety device.
- Vehicle Loading Cranes shall have engineering controls to protect the operator from crush injury during lifting operations.
- Each item of lifting equipment must be individually identified with its safe working load (SWL). These details must also be recorded in the project lifting equipment register.
- Jibs must be fitted with a swivel and safety latch hook and have the capacity to be positively locked to the Tool Carrier bed.
- All Perenti and sub-contractor cranes and lifting equipment must have a current test certificate and a pre-use safety inspection. The safety inspection must satisfy regulatory and manufacturer requirements for frequency of inspection and physical condition of the machine.
- Each item of lifting equipment must be inspected periodically by a competent person and the results of these inspections recorded in the project lifting equipment register.
- Lifting equipment must be tagged with a colour-coded inspection cable tie, stamped metal tag or other means to identify the period for which it is able to be used.
- Any item of lifting equipment showing signs of damage or missing identification tag must be tagged out of service, removed from service and placed in a designated quarantine bin.
- Earth moving equipment and other ancillary plant shall not be used as lifting equipment unless they:
 - Are marked with a Safe Working Load (SWL) and/or Working Load Limit (WLL) on the lifting attachment/point;
 - Have a load chart displayed in the cabin;
 - Are fitted with load lock valves.