

**Cable Winch**

Business Name:		ABN:	
Business Address:			
Contact Person:	Phone:	Email:	

**THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON THIS PROJECT**

Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.

Full Name:		
Signature:	Title:	Date:

**CLIENT OR PRINCIPAL CONTRACTOR DETAILS**

Client:	SCOPE OF WORKS
Project Name:	
Project Address:	
Project Manager:	
Contact Phone:	
Date Risk Assessment supplied to Project Manager:	



RISK MATRIX									
LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION	HIERARCHY OF CONTROLS	
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE			<b>Elimination</b> Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	<b>Substitution</b> Replace the hazard.	
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Review before work starts.	Isolation Isolate People from the hazard	
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	2M MODERATE	Ensure control measures in place.	<b>Engineering</b> Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	Administrative Change	
								PPE	

  

Risk Rating & Required Action:	
<b>4A</b>	Stop work. The risk is intolerable. Eliminate the hazard or redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or higher-level authorisation is required.
<b>3H</b>	Review and approve additional controls before task starts. Senior supervisor sign-off needed.
<b>2M</b>	Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.
<b>1L</b>	Proceed, following standard operating procedures. Monitor and keep records.

  

Consequence Scale:			
Consequence	People (injury/illness)	Project / Assets	Compliance / Reputation
<b>Catastrophic</b>	Fatality or permanent total disability	project shutdown	Significant regulator intervention; criminal prosecution
<b>Major</b>	Serious injury/illness (hospital > 5 days)	critical delay	Improvement notice; major media coverage
<b>Moderate</b>	Medical-treatment injury; lost-time > 1 day	moderate delay	Minor breach; adverse client comment
<b>Minor</b>	First-aid only, no lost time	negligible delay	Isolated non-conformance
<b>Insignificant</b>	No injury	no schedule impact	Deviation caught and corrected on site

  

**Notes on Hierarchy of Controls:**  
Remember to apply controls in the preferred order shown by the coloured pyramid:

1. **Eliminate**
2. **Substitute**
3. **Isolate**
4. **Engineering**
5. **Administrative**
6. **PPE**

Always document **why** a lower-order control is accepted if elimination or substitution is not reasonably practicable.

*aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.*

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
1. Governance, WHS Duties and Legal Compliance	<ul style="list-style-type: none"> <li>Lack of clear allocation of WHS duties for winch ownership, operation and maintenance under WHS Act 2011 and WHS Regulations</li> <li>Failure to identify cable winches as plant requiring formal risk management and safe systems of work</li> <li>Inadequate consultation with workers and contractors involved in winching operations</li> <li>No documented WHS policy or procedures specific to cable and hydraulic winches (including remote control winches)</li> <li>Poor integration of winch risk controls into overall WHS management system and Plant Safety Management Plan</li> <li>Failure to ensure designers, suppliers and installers provide information, instructions and documentation required by legislation</li> <li>Insufficient verification of contractor systems for winching are compliant with site and legislative requirements</li> </ul>	High	<ul style="list-style-type: none"> <li>Develop and implement a documented Plant and Equipment Management Procedure that explicitly covers cable, hydraulic and remote-control winches, aligned with the WHS Act 2011, WHS Regulations and applicable Codes of Practice (e.g. Managing the Risks of Plant in the Workplace)</li> <li>Assign clear responsibilities for winch safety (e.g. HSEU, officers, supervisors, operators, maintenance personnel) within position descriptions and the WHS management system</li> <li>Establish a formal consultation process (H&amp;S committees, toolbox talks, pre-start meetings) to involve workers and contractors in identifying hazards and reviewing controls for winching operations</li> <li>Ensure all winch-related documentation (risk assessments, safe operating procedures, specifications, manuals, competency records, inspection reports) is controlled under a document control procedure with version management and scheduled review</li> <li>Require suppliers, hire companies and installers of winches to provide compliance documentation, load ratings, commissioning records and operating/maintenance manuals before use</li> <li>Include winch plant in the corporate plant register, with links to risk assessments, inspection regimes and training requirements</li> <li>Implement an internal WHS audit schedule that specifically verifies compliance of winch systems with legislative requirements and internal standards</li> <li>Ensure officers exercise due diligence by receiving regular reports on winch-related incidents, near misses and corrective actions</li> </ul>	Medium
2. Procurement, Design and Technical Specification of Winches	<ul style="list-style-type: none"> <li>Procurement of non-compliant, un-rated or unsuitable cable winches for the intended loads or configuration</li> <li>Use of winches, cables or lifting systems not designed for the environmental conditions (outdoor exposure, marine, corrosive, temperature extremes)</li> <li>Selection of equipment without adequate safety features for hydraulic and remote-control operation (e.g. emergency stop, overload protection, interlocks)</li> <li>Inadequate consideration of compatibility between winch, cable/rope, attachment hardware, power source and mounting structure</li> </ul>	High	<ul style="list-style-type: none"> <li>Establish a formal procurement standard for winches that specifies minimum safety, performance and certification requirements, including relevant Australian Standards (e.g. AS/NZS 1418 series where applicable, AS 4024 series for machinery safety, and any industry-specific standards)</li> <li>Mandate that only winches with clearly documented Working Load Limits (WLL), rated line pull and safety factors appropriate to the task are purchased or hired</li> <li>Require engineering review and sign-off for any custom or fixed winch installations, including design calculations for mounting points, footings, structural supports and anchor systems</li> <li>Include in procurement criteria the requirement for emergency stop systems, fail-safe brakes, overload protection, guards, and safe remote-control systems (e.g. coded signals, limited range, dead-man controls)</li> <li>Ensure that hydraulic systems (pumps, hoses, valves) are specified to appropriate pressure ratings, with protection against hose failure and uncontrolled movement</li> <li>Require suppliers to provide detailed technical manuals, wiring/hydraulic schematics, maintenance schedules and training materials as a condition of purchase or hire</li> </ul>	Medium

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	<ul style="list-style-type: none"> <li>Failure to verify design and structural adequacy of support structures, bases, vehicles or foundations used to mount the winch</li> <li>Procurement decisions driven purely by cost, with no formal safety-in-design assessment</li> <li>Inadequate control of design modifications, retrofits or custom winch installations</li> </ul>		<ul style="list-style-type: none"> <li>Implement a formal management-of-change process so that any non-standard configuration, modification or attachment for a winch is assessed by a competent engineer and documented in the risk assessment</li> <li>Standardise on preferred winch models and configurations where possible to simplify training, spares and control measures</li> </ul>	
3. System Planning and Risk Management for Winching Operations	<ul style="list-style-type: none"> <li>No overarching system for planning winching operations involving cable, hydraulic and remote-conditioned winches</li> <li>Failure to assess line of pull, load path, anchor capacity and ground conditions before tasks are approved</li> <li>Inadequate consideration of interaction between winch systems and other plant, vehicles or mobile equipment</li> <li>Lack of formal permit or authorisation process for high-risk or complex winching tasks (e.g. steel cables, recovery operations, multiple snatch blocks)</li> <li>Winching operations conducted without adequate exclusion zones or traffic management controls</li> <li>Poor identification of environmental risks (weather, visibility, slope, underground/overhead services) in planning stages</li> <li>Reliance on informal practices and operator judgement instead of structured risk assessments and procedures</li> </ul>	High	<ul style="list-style-type: none"> <li>Implement a formal Winching Operations Planning Procedure requiring a documented risk assessment (RA) or Job Hazard Analysis (JHA) for all non-routine, high-load or complex winching activities</li> <li>Define criteria for when a permit-to-work or higher-level authorisation is required (e.g. multi-line pulls, recovery on steel or unstable ground, working near public areas or services)</li> <li>Require pre-job planning to consider load weight, friction, gradient, rigging arrangements, number of pulls, line angles, anchor points and potential shock loading, with calculations where necessary</li> <li>Mandate the establishment of exclusion zones and drop zones for all winching operations, documented in site plans and communicated to workers</li> <li>Integrate winch planning into site traffic management plans so that vehicle movements, pedestrians and other plant are segregated from winch lines and potential line-of-fire areas</li> <li>Include environmental assessment (weather, lighting, ground stability, water, wind) in planning checklists, with defined conditions under which winching must cease</li> <li>Ensure planning documents specify communication methods (radio channels, hand signals, call and response) between winch operators, spotters and supervisors</li> <li>Review complex or non-routine winching plans by a competent person (e.g. engineer or senior supervisor) before authorisation</li> </ul>	Medium
4. Training, Competency and Authorisation of Operators	<ul style="list-style-type: none"> <li>Untrained or inexperienced personnel operating cable, hydraulic or remote-control winches</li> <li>Inconsistent understanding of safe winching principles (load ratings, line-of-fire, snatch block use, dynamic loads)</li> </ul>	High	<div style="background-color: black; width: 100%; height: 20px; margin-bottom: 5px;"></div> <div style="background-color: black; width: 100%; height: 20px; margin-bottom: 5px;"></div>	Medium

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	<ul style="list-style-type: none"> <li>No formal competency assessment or refresher training program</li> <li>Supervisors unaware of limitations of winches, rigging equipment and anchoring systems</li> <li>Remote control winches used by persons with poor situational awareness or unfamiliarity with control layouts</li> <li>Failure to provide training on site-specific procedures, emergency response and lock-out/tag-out</li> <li>Inadequate literacy, language or numeracy support resulting in misinterpretation of instructions</li> </ul>		[REDACTED]	
5. Procedures, Safe Operating Rules and Remote-Control Protocols	<ul style="list-style-type: none"> <li>Absence of documented Safe Operating Procedures (SOPs) for cable hydraulic and remote-control winches</li> <li>Inconsistent application of exclusion zones, line-of-fire controls and communication protocols</li> <li>Remote control winches used outside intended range or without visual contact with the load path</li> <li>Unclear rules around who may initiate, stop or override winching operations</li> <li>No documented procedure for setting up and dismantling winch systems, including hydraulic connections and radio pairing for remote units</li> <li>Reliance on generic plant SOPs that do not address specific winching hazards such as shock loading, cable reel-over or side pulls</li> <li>Unsafe practices becoming normalised due to lack of clear rules and enforcement</li> </ul>	High	[REDACTED]	Medium

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6. Inspection, Maintenance and Integrity Management	<ul style="list-style-type: none"> <li>Degraded wire ropes, synthetic ropes, chains, hooks, shackles or anchor points due to wear, corrosion, abrasion or overloading</li> <li>Failure of hydraulic components (hoses, fittings, valves) leading to uncontrolled movement or loss of braking</li> <li>Inoperative or unreliable emergency stop, limiters or braking systems due to poor maintenance</li> <li>Lack of scheduled inspection regime for winches, mounting structures and foundations</li> <li>Maintenance undertaken by unqualified personnel or without reference to manufacturer's instructions</li> <li>No system for tracking service history, repairs, defects or component replacements</li> <li>Use of incompatible lubricants, hydraulic fluids or replacement parts compromising safety or performance</li> </ul>	High	[REDACTED]	Low
7. Control of Cables, Ropes, Rigging and Anchoring Systems	<ul style="list-style-type: none"> <li>Selection of cables, ropes that are under-rated or not suited to winching application (e.g. wrong construction, material)</li> <li>Use of rigging gear (snatch blocks, shackles, recovery straps) without documented WLL and inspection status</li> <li>Improperly designed or undocumented anchor points and ground anchors</li> <li>No system to prevent mixing of incompatible components (e.g. non-rated recovery gear with rated industrial components)</li> <li>Lack of organisational control over personal or improvised rigging gear brought to site</li> </ul>	High	[REDACTED]	Medium

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	<ul style="list-style-type: none"> <li>No register or tracking of critical rigging components used with winches</li> </ul>		[REDACTED]	
8. Remote Control, Electrical and Hydraulic Energy Management	<ul style="list-style-type: none"> <li>Unintended activation of winches via remote controls, electrical faults or hydraulic leaks</li> <li>Signal interference or loss causing delayed, erratic or unexpected winch movement</li> <li>Poor management of batteries, charging and storage of remote-control devices</li> <li>Live hydraulic or electrical energy left connected during maintenance or adjustments</li> <li>Lack of formal lock-out/tag-out (LOTO) and isolation procedures for winches and hydraulic power packs</li> <li>Inadequate earthing and protection against electrical faults on powered winches</li> </ul>	High	[REDACTED]	Medium
9. Site Layout, Traffic Management and Exclusion Zones	<ul style="list-style-type: none"> <li>Winch lines and cables crossing pedestrian walkways, vehicle routes or public areas</li> <li>Insufficient physical separation between operating winches and other work activities</li> <li>Uncontrolled access to the line-of-fire area along the cable path and potential recoil zone</li> <li>Poor signage and demarcation around winching operations, particularly in shared worksites</li> <li>Inadequate lighting or visibility in areas where winches are operated</li> <li>Failure to coordinate winching with other high-risk work (crane lifts, earthworks, confined spaces)</li> </ul>	High	[REDACTED]	Medium

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			[REDACTED]	
10. Emergency Preparedness, Incident Management and Recovery	<ul style="list-style-type: none"> <li>• Unplanned failure of cables, ropes, rigging or winch components leading to injury or property damage</li> <li>• Lack of clear emergency response procedures for winch-related incidents (line snap, runaway load, hydraulic rupture)</li> <li>• Delayed medical response due to remote locations or poor communication planning</li> <li>• Inadequate incident reporting and investigation systems resulting in repeated failures</li> <li>• No formal drills or practice for winch-specific emergencies</li> <li>• Confusion over who is authorised to initiate emergency stop or site evacuation during winching operations</li> </ul>	High	<ul style="list-style-type: none"> <li>[REDACTED]</li> <li>[REDACTED]</li> <li>[REDACTED]</li> <li>[REDACTED]</li> <li>[REDACTED]</li> <li>[REDACTED]</li> <li>[REDACTED]</li> <li>[REDACTED]</li> </ul>	Medium
11. Contractor, Hire Equipment and Interface Management	<ul style="list-style-type: none"> <li>• Contractors operating their own winches on site without alignment to the PCBU's WHS systems</li> <li>• Hired winches and associated equipment arriving without adequate documentation, inspection records or training support</li> <li>• Interface gaps between principal contractor, subcontractors and equipment hire companies regarding roles and responsibilities</li> <li>• Inconsistent standards for winching between different contractors on the same site</li> <li>• Limited oversight of contractor compliance with safe winching procedures and exclusion zones</li> </ul>	High	<ul style="list-style-type: none"> <li>[REDACTED]</li> <li>[REDACTED]</li> <li>[REDACTED]</li> <li>[REDACTED]</li> <li>[REDACTED]</li> <li>[REDACTED]</li> <li>[REDACTED]</li> </ul>	Medium

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			[REDACTED]	
12. Monitoring, Review and Continuous Improvement	<ul style="list-style-type: none"> <li>Winching risks and controls not reviewed as operations, equipment or legislation change</li> <li>Lack of performance indicators specific to winch-related safety outcomes</li> <li>Inadequate field verification that planned controls for operating winches are actually implemented</li> <li>Learnings from incidents or near misses not shared across sites or projects</li> <li>Complacency due to long periods without serious winch incidents</li> </ul>	Medium	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]	Low

SAMPLE

**EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES**

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

**LEGISLATIVE REFERENCES**

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCES FOR ANY STATE THAT ARE NOT APPLICABLE

**Queensland & Australian Capital Territory**

Work Health and Safety Act 2011  
 Work Health and Safety Regulations 2011  
 Legislation QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws>  
 Codes of Practice QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice>  
 Legislation ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/acts-and-regulations>  
 Codes of Practice ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice>

**Victoria**

Occupational Health and Safety Act 2004  
 Occupational Health and Safety Regulations 2017  
 Legislation VIC: <https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations>  
 Codes of Practice VIC: <https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice>

**New South Wales**

Work Health and Safety Act 2011  
 Work Health and Safety Regulations 2025  
 Legislation NSW: <https://www.safework.nsw.gov.au/legal-obligations/legislation>  
 Codes of Practice NSW: <https://www.safework.nsw.gov.au/resource-library/list-codes-of-practice>

**Western Australia**

Work Health and Safety Act 2020  
 Work Health and Safety Regulations 2022  
 Legislation Western Australia: <https://www.commerce.wa.gov.au/worksafe/legislation>  
 Codes of Practice WA: <https://www.commerce.wa.gov.au/worksafe/codes-practice>

**Northern Territory**

Work Health and Safety (National Uniform Legislation) Act 2011  
 Work Health and Safety (National Uniform Legislation) Regulation 2011  
 Legislation NT: <https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws>  
 Codes of Practice NT: <https://worksafe.nt.gov.au/laws-and-compliance/codes-of-practice>

**Safe Work Australia Links**

Law and Regulation (All States): <https://www.safeworkaustralia.gov.au/law-and-regulation>  
 Model Codes of Practice: <https://www.safeworkaustralia.gov.au/resources-publications/model-codes-of-practice>

**South Australia**

Work Health and Safety Act 2012 (SA)  
 Work Health and Safety Regulations 2012 (SA)  
 Legislation for SA: <https://www.safework.sa.gov.au/resources/legislation>  
 Codes of Practice for SA: <https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs>

**Model Codes of Practice**

- Managing noise and preventing hearing loss at work
- Confined spaces
- Labelling of workplace hazardous chemicals
- Managing risks of hazardous chemicals in the workplace
- Welding processes
- First aid in the workplace
- Managing the risk of falls at workplaces
- Hazardous manual tasks
- Managing the risk of falls in housing construction
- Managing electrical risks in the workplace
- Demolition work
- Excavation work
- Work health and safety consultation, cooperation and coordination
- Managing the work environment and facilities
- How to manage work health and safety risks
- Managing risks of plant in the workplace
- Construction work

**Tasmania**

Work Health and Safety Act 2012  
 Work Health and Safety (Transitional and Consequential Provisions) Act 2012  
 Work Health and Safety Regulations 2012  
 Work Health and Safety (Transitional) Regulations 2012  
 Legislation for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations>  
 Codes of Practice for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice>

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence work
- Any required documents.