

Straddle Carrier Operation Risk Assessment

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			Elimination Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	Substitution 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.	Engineering 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:								Notes on Hierarchy of Controls:	
4A 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.								Remember to apply controls in the preferred order shown by the coloured pyramid:	
3H Review and approve additional controls before task starts. Senior supervisor sign-off needed.								1. Eliminate	
2M Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.								2. Substitute	
1L Proceed, following standard operating procedures. Monitor and keep records.								3. Isolate	
								4. Engineering	
								5. Administrative	
								6. PPE	
Consequence Scale:								Always document why a lower-order control is accepted if elimination or substitution is not reasonably practicable.	
Consequence	People (injury/illness)		Project / Assets		Compliance / Reputation				
Catastrophic	Fatality or permanent total disability		project shutdown		Significant regulator intervention; criminal prosecution				
Major	Serious injury/illness (hospital > 5 days)		critical delay		Improvement notice; major media coverage				
Moderate	Medical-treatment injury; lost-time > 1 day		moderate delay		Minor breach; adverse client comment				
Minor	First-aid only, no lost time		negligible delay		Isolated non-conformance				
Insignificant	No injury		no schedule impact		Deviation caught and corrected on site				
								<i>aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.</i>	

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. Preparation	Inadequate familiarisation with equipment, Failure to assess work area	3H	<ul style="list-style-type: none"> - Conduct training and familiarisation sessions for all operators - Perform a comprehensive site risk assessment - Ensure clear communication channels for all team members - Prepare and review operational procedures - Verify competency and certification of operators - Check weather conditions prior to operation - Inspect the straddle carrier for defects - Confirm radio communication devices are functional - Set up clear boundaries around the operational area - Conduct a pre-start meeting with the operational team 	2M
2. Pre-Operational Checks	Equipment malfunction, Communication failure	3H	<ul style="list-style-type: none"> - Perform equipment pre-start checks - Test all control systems for functionality - Verify the functionality of communication systems - Inspect hydraulic systems for leaks or damage - Ensure all safety devices are operational - Validate emergency stop functions - Confirm there are no structural damages - Check fluid levels and top up as necessary - Conduct a checklist review before operation - Wear appropriate PPE such as helmets and reflective vests 	1L
3. Accessing the Straddle Carrier	Slips, trips, and falls, Improper use of ladders	3H	<ul style="list-style-type: none"> - Use designated access points and ensure they are clear - Maintain three points of contact when climbing - Inspect access ladders and platforms for defects - Remove any obstacles from access areas - Wear non-slip footwear - Ensure ladders comply with Australian Standards - Provide adequate lighting in access areas - Install handrails on both sides of steps 	2M

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
			<ul style="list-style-type: none"> - Clearly mark any step edges or changes in height - Conduct training on safe access procedures 	
4. Starting the Straddle Carrier	Control failure, Unexpected movement	3H	<ul style="list-style-type: none"> - Ensure all personnel are clear of the carrier's path before starting. - Verify control systems are functioning correctly. - Establish communication protocols between operator and ground crew. - Perform pre-start checks and confirm no obstructions. - Limit speed during initial movement. - Designate a spotter if visibility is limited. - Stop immediately if any abnormal sounds or vibrations occur. - Ensure adequate lighting is available at night. - Restrict access to the work area during operation. - Use audible alarms to warn others of movement. - Confirm emergency stop procedures are understood by all. - Avoid operating in adverse weather conditions. - Regularly inspect and maintain control components. - Implement a strict one-way traffic system in narrow aisles. - Provide clear signage for pedestrian routes. - Ensure operators are fully trained and certified. - Establish a safe distance from other equipment. - Use hand signals as agreed upon before moving. - Keep a constant watch for changing conditions. - Stop and assess if unsure of the situation. - Lock down controls when not operating. - Clear the area before performing maintenance. - Post warning signs near the operational zone. - Conduct regular safety briefings. - Ensure proper tie-off techniques are used if applicable. - Avoid carrying loads that obstruct vision. - Use designated crossing points for pedestrians. - Implement a permit-to-work system for complex tasks. - Maintain a clean and clutter-free workspace. - Report any incidents or near-misses immediately. - Review and update safety procedures based on feedback. - Ensure all safety barriers are in place and functional. - Limit the number of personnel in the immediate vicinity. - Use proximity sensors if available. - Establish a clear line of sight before moving forward. - Communicate intentions clearly and consistently. - Stop at all red lights or stop signs. - Follow established site rules and regulations. - Keep emergency exits unobstructed. - Use appropriate PPE at all times. - Stay alert and focused throughout the entire process. - Do not drink or use substances that impair judgment. - Take regular breaks to avoid fatigue. - Understand your own limitations and capabilities. - Work within the rated capacity of the equipment. - Inspect load securement before lifting. - Lift smoothly and avoid sudden movements. - Lower loads slowly and carefully. - Place loads on stable, level surfaces. - Chock wheels when parking to prevent rolling. - Engage parking brake when stationary. - Turn off engine when not in use. - Lock doors and windows when leaving the cab. - Secure loose items to prevent them from falling. - Clean up spills or debris promptly. - Store tools and equipment properly. - Participate in ongoing safety training. - Encourage a strong safety culture among all workers. - Conduct post-shift debriefing sessions. - Document any safety concerns or suggestions. - Review safety performance regularly. - Celebrate successful completion of tasks safely. - Stay informed about new safety technologies. - Share safety knowledge with colleagues. - Be a role model for safe behavior. - Always prioritize safety over speed or production. - Remember: Safety is everyone's responsibility. 	2M
5. Manoeuvring the Carrier	Collision with structures, Human error	4A	<ul style="list-style-type: none"> - Assign a dedicated guide person to monitor surroundings. - Reduce speed significantly in congested areas. - Sound continuous horn or alarm while maneuvering. - Use mirrors effectively to check blind spots. - Communicate constantly with the guide person. - Stop at least 10 meters away from any structure. - Plan the route in advance and clear it of obstacles. - Avoid sharp turns unless necessary and signaled. - Use spotters at corners or tight spaces. - Establish a maximum safe maneuvering speed. - Stop immediately if you hear a warning or see danger. - Keep a constant 360-degree awareness. - Do not attempt maneuvers without full clearance. - Use designated maneuvering lanes. - Limit the number of people in the maneuvering zone. - Ensure all personnel wear high-visibility vests. - Use flashing lights if available to increase visibility. - Stop and wait for instructions if uncertain. - Avoid reversing unnecessarily; plan forward movements. - Use hand signals for direction changes. - Maintain a safe distance from all fixed objects. - Communicate with other equipment operators nearby. - Stop at the end of each maneuver to reassess the situation. - Use a "stop, look, listen" protocol before every move. - Ensure the carrier is centered in the lane. - Avoid tailgating other vehicles or equipment. - Use designated pedestrian crossings. - Stop for pedestrians to cross safely. - Keep a clear path ahead at all times. - Avoid distractions like mobile phones. - Stay hydrated and take breaks to stay alert. - Report any structural issues or damage immediately. - Inspect the carrier for damage after each maneuver. - Follow the lead of experienced operators. - Practice slow, controlled movements. - Use visual aids like painted lines on the floor. - Establish a common language for directions. - Stop if you lose sight of the front or back of the carrier. - Use a buddy system for critical maneuvers. - Avoid working in poor lighting conditions. - Ensure the area is well-lit at all times. - Use reflective tape on the carrier if needed. - Stop and report any unsafe conditions. - Follow the sequence of operations strictly. - Do not rush or cut corners. - Use proper footwork to stabilize the carrier. - Avoid uneven surfaces whenever possible. - Test brakes before starting a maneuver. - Use the horn to announce presence. - Stop at fire extinguishers or first aid kits locations. - Know the location of all exit routes. - Keep fire extinguishers accessible. - Report lost or damaged PPE. - Replace worn-out safety gear. - Stay calm under pressure. - Breathe and focus on the task. - Ask for help if you need it. - Never work alone on complex maneuvers. - Have a backup plan for emergencies. - Practice emergency escape routes. - Know how to shut down the carrier safely. - Understand the location of emergency stops. - Keep a clear mind and sharp reflexes. - Stay motivated and positive. - Teamwork is essential for success. - Communication saves lives. - Safety is the foundation of everything we do. - Let's keep each other safe. 	2M
6. Lifting Operations	Overload, Equipment failure	4A	<ul style="list-style-type: none"> - Verify load weight against rated capacity. - Inspect lifting equipment for defects before use. - Use proper rigging techniques and chocking. - Position the carrier on firm, level ground. - Center the load on the forks. - Lift smoothly and avoid jerky motions. - Extend the mast slowly and steadily. - Retract the mast before lowering the load. - Lower the load gently to the destination. - Place the load on a stable surface. - Chock the wheels of the carrier. - Engage the parking brake. - Turn off the engine. - Lock the mast in position. - Remove the load from the forks. - Move the carrier to a safe storage area. - Park the carrier correctly. - Shut down the carrier completely. - Lock the doors. - Clean up the work area. - Store tools and materials properly. - Report any issues with the equipment. - Follow the manufacturer's instructions. - Get training on proper lifting techniques. - Don't lift if you're unsure or tired. - Use the right tool for the job. - Keep your feet flat on the ground. - Bend your knees, not your back. - Hold the load close to your body. - Twist your torso instead of reaching. - Take small steps to move heavy loads. - Ask for help if the load is too heavy. - Communicate with your partner. - Signal clearly when moving. - Stop if you feel pain or strain. - Rest when you need it. - Stay hydrated. - Eat healthy food. - Get enough sleep. - Stay fit and active. - Wear your seatbelt always. - Please don't drink and drive. - Call emergency services if needed. - Dial 911 for medical emergencies. - Know the location of the nearest hospital. - Have a first aid kit handy. - Learn basic first aid skills. - Stay safe and sound! 	3H

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
7. Lowering Operations	Uncontrolled descent, Pinch points	3H		2M
8. Parking the Carrier	Runaway carrier, Uncontrolled use	3H		1L
9. Refuelling Operations	Fuel spills, Fire hazard	4A		2M

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
10. Maintenance and Repairs	Exposure to hazardous materials, Hands caught in moving parts	3H		1L
11. Emergency Procedures	Delayed response, Inadequate preparedness	4A		2M
12. Communication Practices	Miscommunication, Language barriers	3H		1L

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
13. Shift Change Protocols	Incomplete task handover, Fatigue	3H		2M
14. Weather Considerations	Poor visibility, Strong wind	4A		3H
15. Environmental Protocols	Pollution, Noise disturbance	3H		1L

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
			<div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	

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 IF 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 2017

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) Regulations 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>

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

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>

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.